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# CHAUVEL PRIZE

In its deliberations earlier this year, the Editorial Advisory Board decided to split the Chauvel Prize and make an award for the best article published in each issue. We hope and intend that this will encourage more readers to consider writing for the *Australian Army Journal*. The winners for 2014 accordingly are:

**Captain Nathan Mark**, 'The Increasing Need for Cyber Forensic Awareness and Specialisation in RA Sigs', (Winter)

**Lieutenant Colonel Martin White**, 'Operational Security in the Digital Age: Who is Being Targeted?', (Summer)

Congratulations to both winners.

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# SECURITY

## Operational Security in the Digital Age: Who is Being Targeted?

Lieutenant Colonel Martin White

## ABSTRACT

Although not deliberate, a significant risk to Army's operational security is the current use of mobile telephony by senior Army leaders. Senior Army leaders use mobile telephony to receive and provide information that is distilled, timely and accurate, offering an enemy force or a strategic competitor high value information for little effort. Conversely, significant investment has been made to secure Army's tactical communications, where information is mostly disaggregated and short-term. Some basic actions can be taken to reduce the risk.

*Bin Laden's voice was never heard on cell phone conversations intercepted by the National Security Agency during surveillance.*

Senior United States official[1]

The use of mobile telephony by Osama bin Laden's aides may have eventually compromised his location in Pakistan prior to his death, but there is strong evidence that bin Laden and his supporters were exceptionally cognisant of the vulnerabilities associated with using mobile telephony and internet communications, employing extensive operational security measures. There is now a litany of evidence describing the ease with which mobile telephony can be exploited, amid warnings from pre-eminent military forces such as the United States (US) Army that the use of mobile telephony entails significant risk.[2]

Australian political, bureaucratic and military leaders rely extensively on mobile telephony to manage the most important affairs of state. While this growing reliance is not isolated to senior Army leaders, the evolving nature of the Army's command and control must be continually examined to ensure best practice and to avoid unnecessary risk to national security.

Significantly, despite many warnings concerning the vulnerabilities associated with mobile telephony, there has been little apparent curiosity about the threats posed by reliance on such technology. Indeed, there is a mismatch between the apparent necessity for the communications security offered to tactical forces by projects such as Land 200, and senior Army leaders' use of highly vulnerable commercial communications to pass information. While a key aim of electronic surveillance is to obtain the highest value information using the least possible effort, the desire for efficient command and control through the use of mobile telephony has resulted in the presentation of a consistent target to potential threat forces and strategic competitors.

Concurrently, the relative importance and value of information is changing. Information proliferation and the commercial and military desire to manage 'big data' continue unabated. While the value of information has diminished as it can be obtained from many sources and can often be accessed by anyone, information gained from senior Army leaders has retained or increased in value because such information is distilled, accurate and timely, and is consistently available. When such attractive information is disseminated over mobile telephony, the priority for the assignment of scarce electronic surveillance assets of an enemy force or a strategic competitor is easily decided. Despite this, Army investment in security for command and control has focused on the lower tactical level, where information is comparatively less valuable.

This article contends that the primary risk to the Army's operational security lies in the use of mobile telephony by senior Army leaders to enable command and control. Where bin Laden and his supporters made the decision to apply extensive operational security measures to ensure effective command and control, the Australian Army has taken the opposite approach. This article will highlight potential areas for Army focus so as to mitigate this ever-present risk.

## Mobile-only

A summary by Deloitte of the most disruptive current and future technology trends reveals that the movement towards 'mobile only' has replaced the previous trend of 'mobile first'. 'Mobile first' refers to the trend for companies, organisations or projects to favour the inclusion of a mobile telephony component in their business practices. The trend towards 'Mobile only' reflects a belief that mobile telephony should not just be a component, but rather the fundamental basis of communications for organisations.[3]

This trend has also influenced the Australian Army, an organisation reliant on mobile communications for expeditionary operations and for rapid responses to highly dynamic circumstances. Almost all the Army's command and control systems rely on commercial or non-secure components including the new liaison officers' briefcase system, tactical satellite, INMARSAT and the Battle Management System. However, two commercial systems are particularly pervasive: Global Navigation System for Satellites (GNSS) and mobile telephony. GNSS vulnerabilities across almost all sophisticated military capabilities have attracted some analysis in the US military context,[4] and the risk is also worthy of more detailed examination in the Australian Army context (although such treatment is beyond the scope of this article).

Senior Army leaders are now completely reliant on mobile telephony such as Global System for Mobile (GSM) communications for their work and personal communications. Almost all senior Army leaders are allocated Research in Motion Blackberry devices for voice and email communication. Apart from domestic personal and work use, senior Army leaders rely on mobile telephony when conducting offshore activities such as international engagement, and also while on operational service. For example, the Roshan network in Afghanistan was heavily used by Australians during Operation Slipper, the vast majority of these information exchanges concerning operational matters or personal communication.

This is not to say that senior Army leaders are knowingly or willingly compromising sensitive information of national importance. However, the mere regular use of mobile telephony could produce just such an outcome. If using mobile telephony for any length of time, it is almost impossible to adhere to doctrinal communications discipline requirements which include avoiding unnecessary or long transmissions, engaging in unofficial conversation, identification of individual or unit names, and ensuring that transmissions are logged to allow reference to information previously transmitted.[5] Indeed, volumes of doctrine and procedures have been dedicated to ensuring that tactical users do not compromise security and comply with secure practices, yet many of these time-proven security measures are discarded when mobile telephony is used. The informality of mobile telephony communications may also make inadvertent compromise far more likely.

## The threat

Recent intelligence compromises, such as those by former US National Security Agency contractor Edward Snowden, demonstrate the extensive nature of national collection occurring on commercial communications systems.[6] It would be naïve to assume that the US and its closest partners were alone in the collection of intelligence from commercial communications systems or in the targeting of senior political and military leaders from countries of interest.

The US Computer Emergency Readiness Team has produced many unclassified documents describing the threats to mobile device users. One of these documents highlights criminal (or enemy, as is equally applicable) threats to mobile device use. Enemy forces can listen to telephone calls, secretly read Short Message Service texts, use a handset as a remote bugging device, view the handset Global Positioning Service location, or automatically forward emails to another address.[7] A 2007 International Security Assistance Force (ISAF) report highlighted the fact that 'every GSM provider in the world has the ability to locate and track a GSM phone as soon as it is turned on', specifically referring to the risk that senior ISAF leaders could be tracked by Roshan and locational information passed to threat forces. The report also referred to the concern that Pakistan's intelligence service (ISI) collected and databased all Roshan calls and telephone numbers from Afghanistan.[8] The common argument that Afghanistan presents an 'uncontested electronic environment' is naïve in the extreme.

It is fair to say that none of these potential threat capabilities would be a surprise to most mobile device users. However the common response by the large number of Army mobile device users is often surprisingly apathetic. Furthermore, while

technical weaknesses that allow for intelligence collection may be addressed or mitigated by commercial companies or by security agencies, new techniques used to compromise communication devices appear rapidly and regularly, including one recent example known as 'WireLurker'.[9] Use of mobile telephony is clearly an operational security risk.

## Target-rich environment

The availability and value of information has changed immensely in recent years, with specific information decreasing in value. The significant focus on 'big data' analysis[10] is indicative of this, as organisations such as the Australian Army find information available from many different sources, but face major challenges in the analysis of this data to convert it to useful information. Furthermore, the importance of specific collection platforms or capabilities has diminished, as other platforms or capabilities can easily fill the information void. The large number of collection platforms currently proposed in the Defence Capability Plan (both those that are specifically designed to collect and those to which collection is incidental to the primary mission), compared to the low number of planned capabilities that support the analysis of data, highlights the reduced value of specific collectors.

To emphasise this point on the availability of information, the Army now has many means at its disposal to locate a land-based enemy headquarters. It may use unmanned aerial vehicles, electronic warfare, human intelligence, reconnaissance troops or satellite imagery. It could rely on air platforms such as the AP-3C, Joint Strike Fighter or Growler, or maritime platforms such as a Collins Class submarine. Strategic agencies and effects, such as cyber capabilities, could also locate the headquarters. Many internet products and applications and commercial tools could do the same. If operating in a US-led coalition, the means to locate the enemy headquarters increase exponentially. It is only on rare occasions, such as during the search for bin Laden, that such extensive information collection options take a long time to bear fruit, although ultimately they still achieve the desired effect. Importantly, the Army would not have to defeat or detect the entire spectrum of enemy communications, physical or non-physical signature or personal information to locate the enemy headquarters. Indeed, a single indicator, such as a commander's mobile phone, may be all that is necessary. Alternatively, a small number of minor indications could be fused or analysed to accurately determine the location. Quite clearly, specific sources of information are less important because there are many others that could be used to achieve the same effect.

However, an enemy surveillance force or a strategic competitor will always seek to gain information of the highest value for the lowest possible effort or cost. Such intelligence collection will be concentrated on where information is most important, where it is distilled, and where it is timely. Collection is easier if information is being passed on a reliable network that is not easily disrupted, and collection is even more attractive if valuable information is being passed on a non-secure or poorly secured network.

This explains why senior Army leaders present such valuable targets. Within the dross of information that is now available to all military forces, targeting the mobile telephony use of senior Army leaders is of immense value to an enemy surveillance force or a strategic competitor. The use of mobile telephony for military purposes and often also for personal communication means that it is almost impossible for senior Army leaders to achieve the operational security goal of a military communication user to 'remain anonymous' in an effort to mitigate electronic targeting.[11]

### Administration only

It could be argued that senior Army leaders do not use mobile telephony for sensitive purposes and that such devices are used for 'administration only'. This is to misunderstand the nature of the communications under discussion. Even if senior leaders use mobile telephony solely for personal reasons, it is a simple matter to develop an accurate intelligence picture of the individual, of the network of friends and colleagues that he or she maintains, and of the locations he or she visits. For example, when a senior leader and a subordinate communicate via mobile telephony, the first spoken word will almost inevitably be 'Sir' or 'Ma'am', immediately indicating seniority to an electronic surveillance element. The leader's personal traits and attitudes may be determined after only a few conversations. If the individual has a confidant, the identity of this person may be sought to allow further targeting. Finally, when the inevitable discussion of operational matters occurs, sometimes because 'extreme' circumstances exist where immediacy of reporting is essential, this information can be corroborated with other sources. It is notable that doctrine such as allied communications publications define extreme circumstances as when the 'speed of delivery is so essential that time cannot be spared for encryption and the transmitted information cannot be acted upon by the enemy in time to influence current operations.'[12] With the ease of modern encryption, such circumstances should be rare.

Furthermore, the use of 'veiled speech', code words or cover terms is permitted under allied and Australian doctrine to mitigate security risks when non-secure systems are used. The optimum use of code words occurs when they are applied only once.[13] However, veiled speech is far from the security panacea that it is often considered. The context of a conversation is very important when using veiled speech and it may only take one or two instances of the same veiled speech or cover term before the term is compromised. There are many poor examples of veiled speech and cover terms in Army use. For example, when Australian soldiers make the common declaration that they are 'deploying to the sand pit', few interested parties would be deceived into the belief that a Timor-Leste deployment was imminent. If veiled speech or cover terms are compromised at a later date, such as through some of the Snowden cover term disclosures, all previously recorded use of the veiled speech or cover terms may be retrospectively understood and contextualised.[14]

The seventeenth-century French statesman Cardinal Richelieu once said, 'If one would give me six lines written by the hand of the most honest man, I would find something in there to have him hanged.'[15] While this quote may lead some to argue the value of privacy over the pervasive nature of state surveillance, equally this can be related to the targeting of the communications of senior Army leaders. Eventually, and probably sooner rather than later, sensitive and useful information from mobile telephony use will be accessed by an enemy force or a strategic competitor.

## Misplaced investment

Defence projects such as Joint Project 2072 and Land 75 were established in part to provide greater security to land tactical communications. The $2.75 billion assigned to the tactical communications digital backbone and the BGC3 Battlefield Command System has provided excellent content security to tactical land force transmissions.[16] Yet, such an investment, while almost impossible to question as an essential modernisation of land communications and command and control infrastructure in the Australian Defence Force, may be misplaced from a security point of view. Investment in other aspects of tactical communications security, such as the assignment of personnel and resources to 'Communications Security Monitoring Teams', may also be misplaced, because they are focused on an area of operational security that is of low relative value.

If a hypothetical near-peer threat force was to challenge the Australian Army, the electronic surveillance element of the threat force may seek to target tactical communications systems. As previously mentioned, this may be secondary to targeting the more valuable command use of mobile telephony. However, at certain points, targeting tactical Australian forces will be necessary for an enemy, such as to clear an Australian element from a key geographical feature. Even with the $2.75 billion investment in command and control modernisation, tactical elements still demonstrate vulnerabilities that an enemy electronic warfare element can effectively target.

Through the Land 200 investment, tactical forces now have highly sophisticated secure communications. Apart from the risk of insider threat, it is highly unlikely that a threat force could easily or rapidly understand the information contained within tactical voice and data communications if the system is used as intended. Furthermore, the value of information is diminishing, and information from a tactical element is short-term, disaggregated (most transmissions only emanate from a single force element) and takes significant time to translate and contextualise. This is not to say this information is unimportant; however there is comparatively far less value for an electronic warfare element in targeting company or battalion command and control than in focusing higher up the chain.

Apart from the content of specific transmissions, however, two other aspects of the Australian transmissions remain highly vulnerable — the location of their point of origin, and disruption of those transmissions through electronic attack.[17] Protecting the unit location and ensuring an immediate message reaches its intended recipient without disruption are arguably far more important for the tactical Australian force than any compromise of the low-level and short-term information that is almost always contained in tactical transmissions.

Through an understanding of radio power output or terrain, or through processes such as triangulation, an enemy force could gain immediate information on an Australian element's location and react with force. Denial or disruption of communication may see immediate command and control measures, such as reinforcement of an Australian force under attack, delayed or misunderstood. These clear tactical vulnerabilities are far more critical than the relatively low value of the content of the transmission which, even if the cryptography could be broken, would then require translation and contextualisation, processes that take significant time.

An Army Headquarters 'Building on Beersheba' discussion paper challenges the reader to debate the threats and risks associated with digitisation, and expresses concern over the effect on command and control if the digital network was contested. Furthermore, the discussion paper acknowledges that the Army's 'understanding of threats, risks and vulnerabilities is immature'.[18] While the paper anticipates that the Army's new digital centre of gravity will be subject to 'vigorous attempts' to defeat the network, it is far more likely that a threat force or strategic competitor would see little need for this. The higher level information being passed over less secure commercial systems presents a more logical target. However, if the threat force did seek to target tactical communications, it could effectively locate and disrupt such communications using basic electronic warfare equipment, and this would probably achieve the tactical effect required. The essential digitisation initiative undertaken by the Australian Defence Force has done little to enhance security to what has historically been the most vulnerable elements of tactical communications, and the regular claims and widespread belief that digitisation projects have provided greater 'security' to the Army's tactical communications have arguably established a false belief in the protection of command and control.

In summary, the level of investment in communications security has been skewed towards tactical users, rather than towards the senior Army leaders who provide the most important source of intelligence to an enemy force or a strategic competitor. Furthermore, the investment in tactical command and control is weighted towards the arguably unnecessary high-level encryption of short-term, disaggregated, low-level data, rather than towards protecting the location of the transmission or the assurance that the necessary information will arrive in a timely manner without being affected by enemy electronic attack.

## Know the threat

There are a number of ways to ensure that the command and control actions of senior Army leaders do not compromise national security. Most of these solutions are not expensive, but require education, advice and consistency. Leaders appear to exhibit a natural tendency to revert to the easiest means of command and control, particularly if there is no immediate feedback from a threat force or a strategic competitor when information is gained through the use of mobile telephony.

Understanding the threat is fundamental to ensuring the security of the Army's command and control. Training on the threat posed to the Army's command and control in Afghanistan and Iraq was conspicuously absent from the extensive lead-up training for contingents departing for operations in those countries. This is striking because these missions entailed the most significant risk to Australian life since the Vietnam War, and there was ample warning within ISAF of the threats posed to specific communications in Afghanistan. Indeed, ISAF produced at least six reports on electronic warfare threats in Afghanistan in 2007 alone.[19] It is reasonable to expect that aspects of risk and threat would be considered holistically. The lack of curiosity and awareness concerning threats to command and control should be addressed prior to future major deployments, and the remedy may include guaranteed support from organisations such as the Defence Intelligence Organisation. While there are those who will consider the issues raised in this article 'communications' or 'electronic warfare' issues, accepting them as clearly command and control vulnerabilities is also important.

Osama bin Laden's attention to communications security proved extremely successful for him over a long period of time. Other threat forces, such as the Taliban in Afghanistan, similarly developed a refined understanding of the need for operational security when using commercial communications. For example, Taliban members avoid detection by using internet phones with Voice over Internet Protocol such as Skype. They use fake Facebook profiles. They also threaten Roshan network employees in Afghanistan who may be passing Taliban mobile telephone numbers to US forces and the Afghan government.[20]

Similarly, al Qaeda operatives were trained to use code words in mobile telephone communications, used encryption, sent messages embedded in graphics and audio files, imposed time limits on telephone conversations, altered their voices when speaking, relocated and changed their handsets, limited contact with families, and used couriers rather than mobile devices wherever possible.[21] They also regularly swapped handset users between combatants and non-combatants. Such operational security measures are not employed by the Australian Army. In the Army context, the commonly used term 'handing over the phone' is synonymous with a change in command for senior positions, except that handing over the same phone provides easy, ongoing, high-level intelligence for threat forces and strategic competitors. The Taliban and al Qaeda may be an unsophisticated military enemy, but they have demonstrated far more sophistication in command and control security because they are aware of the threat.

The Army must consider precisely which element of the network requires the most security for the protection of command and control. Major investments to provide the highest level of security to the information of lowest intelligence value appear misplaced and, indeed, increase the workforce the Army must allocate to functions such as cryptography management. In some ways, leaving the lowest value information unsecured can present a dilemma to an enemy force — does the enemy dedicate scarce technical resources to collecting and translating this information, or does it focus on other parts of the network? Ensuring that the 'red force' for major Army exercises is assigned a sophisticated electronic warfare capability, with a wide remit to target the 'blue force' as it would target any enemy force, would provide valuable training. Using electronic warfare elements to support the delivery of projects such as Land 200 would also add sophistication to the Army's command and control.

Training and educating senior Army leaders concerning the threats associated with using mobile telephony remains important, and should be an ongoing task for communications and intelligence professionals. Perhaps more importantly, further education should be provided to leaders on how quickly an intelligence picture can be developed. The common perception is that intelligence is built up over lengthy periods. In reality, a very accurate representation of networks, confidants, personalities, key information and movements can be developed within several telephone calls or emails.

Finally, if the Army is prepared to invest $2.75 billion in improving tactical command and control, policy makers should consider investing a small fraction of that to improve the security of mobile telephony used by senior Army leaders. Available technology supports this, and the 'mobile only' trend can remain central to Army command and control. Even through the use of commercial technology, greater security can be provided to the regular communications of senior Army leaders, and indeed to all Army users of mobile telephony.

While targeting senior Army leaders' use of mobile telephony is far from the only way that a threat force or a strategic competitor can gain intelligence on Australia and its army, it probably offers the most return for the least investment. Similarly, the Army can achieve a high return for a low investment if mobile telephony is used more judiciously and better understood.

## Conclusion

With the relative importance of specific information diminishing, threat forces and strategic competitors will be looking for ways to maximise the value of intelligence and minimise the effort required to gain that intelligence. While there is little doubt that small pieces of tactical information accumulated over time can offer something of intelligence value, targeting the use of mobile telephony by senior Army leaders (and indeed by senior political, bureaucratic and military leaders) provides the high-gain low-cost trade-off that is sought by enemy forces and strategic competitors. In this sense, there is an imbalance between the extensive operational security measures required of tactical soldiers with low-level information, and the lack of operational security measures required of (and provided to) senior Army leaders who handle information that is timely, distilled and of high relative value.

This article does not contend that tactical information is unimportant, or that senior Army leaders should not use mobile telephony. Conversely, it is a quantum leap in development for the Army to have moved towards high capacity command and control means that have a commercial component. However, this transition must be achieved with a clear understanding of the risk and the threat, and not just considered a consequence-free change in preferred communications means. Not even Australia's most technologically unsophisticated enemies of the 2000s consider it as such.

## THE AUTHOR

Lieutenant Colonel Martin White is a serving Australian Army officer. He has undertaken numerous military deployments to Timor-Leste, Iraq, and Afghanistan. He is currently completing a PhD through La Trobe University, focused on Australian defence policy.

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# TRAINING

## Adapt and Overcome: Promoting Tactical Adaptation in the Post-Afghanistan Army

Lieutenant Nicholas Barber

## ABSTRACT

Commanders in the Australian Army pride themselves on sound military decision-making based on thorough analysis of the threat, terrain and their higher commander's intent. Yet this self-assurance is misleading. The employment of existing military planning tools should lead commanders to develop adaptable tactical solutions that account for the vulnerabilities in a given threat system. However, tactical military commanders often do not conduct a detailed appreciation of the threat system or, if they do, they fail to incorporate these vulnerabilities into the manoeuvre plan. As a result, commanders often resort to the aggressive execution of a familiar tactical template. This article aims to stimulate discussion on the training focus of the Army in a post-Afghanistan context. It examines the Army's unique opportunity to develop training constructs to promote tactical adaptation. At the same time, it identifies the rise of an aversion to the combat lessons from Afghanistan, which may see the Army return to the predictability of exercises prior to East Timor. The article closes with the recommendation that the Army incorporate unknown threat elements into exercises to promote innovation and achieve tactical adaptation.

## Introduction

'Threat and terrain dependent' is a phrase all commanders have heard during their careers. Often considered an instructor's 'throwaway' response to a trainee inquiry about a tactical problem, the phrase actually encapsulates the totality of the Military Appreciation Process (MAP) and the requirement for professional militaries to understand tactics and remain responsive to the battlespace.[1] Put simply, tactics is 'battlefield problem-solving', and the MAP is the Australian Army's military decision-making tool.[2] Commanders employ the MAP to assess multiple courses of action and choose the most appropriate military option for the battlefield scenario. Most of the Army's commanders apply the MAP at a tactical level. The tactical level of war centres on the actual application of force against the adversary, and the Army trains for the tactical fight on a daily basis, from brigade manoeuvre to individual combat drills.[3] While tactical military commanders generally demonstrate the capacity to apply tactics to the terrain, far too often they simply *acknowledge* the threat rather than *adapt* their tactics to exploit threat vulnerabilities. Such shortfalls should be identified and rectified during the Army's training cycle. Indeed, apart from the conduct of actual operations, the Army's principal responsibility is to conduct training to prepare the organisation to meet the capability requirements of the Australian government.[4] However, the current training construct does not address what it really means for tactics to be 'threat and terrain dependent' nor does it assist junior commanders to apply the intellectual rigour required by the Army's planning tools. As a professional military, building the appropriate training construct is essential for the Army to retain its utility for future combat. Following 15 years of continuous operations, the Army should be well placed to refine its approach to training in order to accommodate the lessons it has learnt from recent operations and replicate the conditions of war to prepare new soldiers for the next battle. Yet this is far from the case.

This article aims to stimulate debate on the future training focus of the Army. In particular, this discussion will address the fact that adaptation, the principal characteristic of an 'adaptive' army, is rarely practised at a tactical level. Tactical commanders and staff, specifically from platoon to unit level, seldom effectively incorporate the vulnerabilities of threat systems into military planning. This article will also discuss the rise of an apparent aversion to tactical lessons drawn from 'the Afghan model' and consider the utility of returning the Army to the 'basics' practised prior to East Timor.

## Tactical adaptation?

When most current junior commanders define 'adaptive', it is often in terms of the way they fought the existing tactical model or 'drills' through new or changing circumstances and achieved the desired endstate. A commander advocates 'adaptation' as a 'sustain' in the After Action Review when his/her tactical model, such as a combat team left or right flanking attack, was required to change axes moments prior to H-hour or maintained momentum despite the commitment of the enemy reserve. However, the aggressive application of a known model does not constitute tactical adaptation. Adaptation is the process of undergoing change to suit new conditions or circumstances. In a military setting, an adaptive approach at the tactical level would see commanders developing new and different methods to employ their force to exploit terrain and defeat the enemy in detail.[5] Such tactical methods may include changes to section composition, modifying the employment of platoon weapon systems, using unorthodox combat team insertion methods or undertaking bold but risky battlegroup manoeuvre. In fact, commanders would encourage subordinates to consider 'all options on the table' rather than resorting to strict reliance on existing tactical models.

Importantly, existing tactical models are only best practice against the enemy they were designed to defeat. As a basic example, the left or right flanking attack may be completely ineffective against an enemy that always maintains strong flank security. Consequently, a thorough knowledge of the enemy is essential for commanders to adapt their tactics to exploit threat weaknesses. The Army has a tool that can support this process.

The Intelligence Preparation of the Battlespace (IPB) is the tool Army intelligence staff use to assess the battlespace and threat in an area of operations. The IPB provides recommendations to the commander based on analysis of the threat and terrain, while the resulting assessment of the threat's 'critical vulnerabilities' assists in shaping the manoeuvre plan.[6] As the IPB contributes to the MAP, planning staff then account for the terrain and adopt the best tactical approach to defeat the enemy's plan. Fundamentally, this is the basis of manoeuvre warfare.[7] Staff must be prepared to depart from existing tactical models to adopt approaches that will best defeat the threat — a decision that is likely to incur increased risk.[8] While this process sounds simple, tactical commanders often conduct *consideration* rather than *appreciation* of threat and terrain. The Army's own reporting suggests that many commanders and staff arguably do not understand the Army's military planning tools.[9] Military decision-making becomes a process of 'box-filling' to the extent that most junior commanders have pre-set answers to fill MAP workbooks.

Importantly, trainees are not taught differently, nor are they exposed to training scenarios that encourage such processes to be practised effectively. When it comes to the fight, these same commanders apply existing drills and tactical models in an aggressive manner while hoping that the threat is not somehow different to that which the model was originally formulated to defeat. Such an approach is achievable in training scenarios with a predictable opponent, but is more difficult when military forces undertake combat in the real world.

Experienced soldiers from Australia's previous conflicts recognised how to defeat the threats they confronted — from Monash's use of combined arms on the Western Front to section/platoon-level ambush success in the jungles of Vietnam.[10] Yet even these successful tactical models only retain their utility against the threat and terrain they were designed to defeat — platoon jungle tactics from counterinsurgency operations are not best practice in an unlimited conventional war in the muddy trenches of the Western Front. Unfortunately, the continued professionalisation of the Army has perhaps reinforced a perception that it possesses a repertoire of decisive manoeuvres that will always result in tactical victory.[11] Doctrine and Standard Operating Procedures are read, understood and employed, but rarely challenged.[12] Provocative former Army officer James Brown accurately identifies that 'armies do not innovate unless they have systems expressly designed to stimulate new ideas'.[13] Arguably, such systems are not present within the Australian Army.[14] Innovation across the Army has been stifled and the strict reliance on existing tactical models is probably a result of the 'conform-to-pass' environment created by the Army's training institutions and exercises.[15] The Army's training framework, the Force Generation Cycle, is principally designed to certify units for deployment on operations and to satisfy the 'ready' criteria.[16] This begs the question: 'ready' for what? The assumption is that the Army is 'ready' to undertake combat against Australia's future threat elements. Yet the Army cannot predict what form that battle will take. To respond to this uncertainty, it espouses a concept of adaptability, as articulated in *Adaptive Campaigning – Future Land Operating Concept* (AC-FLOC).

## The Adaptive (tactical?) Army

AC-FLOC presents a realistic summary of the unpredictable characteristics of future threat elements.[17] While it is true that the future operating environment will be influenced by the rise of new great powers, non-state actors and resource limitations, the identity of the Army's future adversary remains uncertain.[18] However,

regardless of the geopolitical situation, it is safe to assume that the commander of its next adversary will attempt to expose weaknesses in the Army's tactical models, potentially through irregular combat ratios, legal status ambiguity or weapon systems, particularly in the chemical or electronic/cyber realm.[19] Yet, if the Army's future enemy is unknown, how can it be 'ready' for the next battle?

In discussing future conflict at the tactical level, AC-FLOC condenses the challenge of fighting threat groups by declaring that 'Complex War is a competitive learning environment.'[20] To win the land battle in a learning environment, the Army requires a learning model — a system that promotes innovation.[21] However, instead of providing practical solutions to promote a learning model, AC-FLOC simply endorses the 'act, sense, decide, adapt' cycle and reinforces the concept of 'mission command' to remedy the tactical uncertainty of the Army's next battle. Following the release of AC-FLOC in September 2009, many military commentators confirmed the requirement for the Army to be 'adaptive' and, unsurprisingly, Australia has proven to be one of many militaries to recognise that preparing for 'a war' requires a focus on adaptation.[22] Yet, concepts such as AC-FLOC have chiefly concentrated on promoting operational adaptation and avoided providing practical methods for achieving adaptation at a tactical level.

Five years on from the release of AC-FLOC, the Army has arguably yet to develop a training model that adequately addresses the challenge of future combat.[23] As the Australian Defence Force withdraws from operational commitments in Afghanistan, the Army is in a unique position to reconsider its training focus and how it accounts for the uncertain nature of future threat elements. In particular, the Army has some 15 years' experience of 'fighting wars' to establish training environments that promote tactical adaptation. However, a fierce aversion to experiences from Afghanistan has emerged in the modern Army and the organisation is in danger of losing some valuable lessons in the employment of military forces on operations. Ultimately, the Army could lose its best chance of establishing a training construct that entrenches a learning model.

## The Afghan model — a (slow) learning model?[24]

The 'Afghan model' is a term that military commentators use to describe the framework of operations in Afghanistan. In the Australian context, the 'Afghan model' can best be described in terms of three elements: sub-unit (-) partnered patrols with overwhelming fire support against section (-) dismounted threat forces; the strict employment of force protection and countermeasures to safeguard

against improvised explosive devices (IEDs) and suicide bombers; and independent tactical activities by Special Forces against high pay-off targets.[25] Such actions have been adopted against a variety of threat forces, including the Taliban, the Haqqani network and local criminals and powerbrokers.

Importantly, the threat elements in Afghanistan are not constrained by doctrinal templates. In fact, like most participants in combat, they are driven by a single desire to win the fight. The Taliban has not conformed to predictable models and has actively sought to identify and exploit weaknesses in Australian tactics, techniques and procedures (TTPs).[26] Ultimately, this has provided the Army with a very important experience that has not been adequately replicated in its training continuum — a real and competitive threat. The adaptive threat in Afghanistan highlighted the essence of AC-FLOC's 'competitive learning environment' and illustrated why the blind but aggressive application of existing tactical models is insufficient for actual combat operations.

Timely and accurate intelligence was central to defeating threat elements in Afghanistan.[27] Importantly, an increased understanding of the role of intelligence in identifying and comprehending the threat and terrain was critical in developing new and effective responses to counter threat strengths and improve force protection for Australian soldiers. In fact, the IPB and MAP proved their worth when applied correctly.[28] Despite this, some lessons were never fully refined at a tactical level and the operation was clouded by political sensitivities, casualty aversion and the complexities of an unclear mission and endstate.[29] Nevertheless, the Army fought a *real* enemy and is now well placed to use those experiences to understand AC-FLOC's 'competitive learning environment' and refine training methods for the next fight — this is the utility of the Afghan model. All commanders should strive to understand how to use those experiences to train and fight a combat brigade in the Beersheba construct. How does the Army learn from Afghanistan and remain tactically adaptable to respond to the future land combat requirements of the Australian government? Bizarrely, some commanders appear to be trying to achieve exactly the opposite.

## Return to the myth of pre-East Timor perfection

Unit and sub-unit commanders guide the tactical training focus of the Army on a daily basis. In a post-Afghanistan context, many of these commanders espouse a return to being 'brilliant at the basics'.[30] The 'basics' comprise defined drills or tactical models that are rehearsed to perfection and generate enthusiasm for

tactical military success among soldiers. Undoubtedly, commanders at all levels should implement robust training programs to improve soldier skills. But who defines what comprises the 'basics'? A soldier in the Napoleonic era possessed a different understanding of the drills and skills required to achieve tactical victory to that of a soldier from the second Australian Imperial Force.[31] Most importantly, the 'basics' are not universal — nor are they necessarily enduring.[32] The conflict in Afghanistan has already taught the Army much about the fluid nature of combat operations — the obvious question is why some commanders are so eager to forget this.

In recent years, a distinct loathing of experiences from Afghanistan has emerged within the Army. Many commentators have attempted to be the first to identify shortfalls in Australian TTPs employed in Afghanistan.[33] However, aversion to the 'Afghan model' is often not the result of critical analysis, but rather a drive to condemn the military framework of their predecessors for the sake of it — a process most suitably labelled 'potent post-revisionism'. It is often among unit and sub-unit commanders that potent post-revisionism is most profound.[34]

Potent post-revisionism has strongly influenced the approach of some commanders at the rank of O4–O6 (major to colonel). Their oft-argued perspective on how the Army 'should be' can be best summarised in one quotation: 'the Army was at its best prior to East Timor'.[35] When unit commanders combine this pre-East Timor mindset with their desire to be 'brilliant at the basics', the direction of the Army's future training becomes questionable. In their return to a pre-East Timor training construct, the 'basics' advocated by these mid-level leaders comprise defined drills or tactical models that were designed to defeat a pre-East Timor enemy — they cannot be universally applied as decisive manoeuvre. Most critically, the myth of achieving pre-East Timor 'perfection' relies on building training scenarios that reinforce the concept that the Army will face a predictable adversary — something its combat experience has proven to be simply far-fetched.[36]

The intelligence function is particularly vulnerable to potent post-revisionism. Mid-level commanders have the propensity to devalue the significance of the intelligence function because exercising drills against a predictable enemy requires little to no analysis of the threat.[37] Exercising and certifying the 'pre-East Timor basics' threatens the Army's capacity to produce a practiced intelligence framework and, as such, threatens its capacity to respond to the 'competitive learning environment' identified in AC-FLOC. Instead of providing advice to the

manoeuvre commander on threat and terrain based on sound analysis, a return to 'the pre-East Timor model' may see intelligence cells supplemented by injured soldiers for the purpose of making maps, constructing mud models and writing threat scenarios to suit a commander's predetermined course of action.

Fundamentally, this approach lacks intellectual rigour. Concentrating on pre-East Timor tactical models is superficially attractive — rigid and predictable drills with volumes of existing doctrine will always appear efficient.[38] This 'pre-East Timor model' is centred on an assumption that the content of pre-East Timor doctrine was (and remains) correct. Blindly applying and reinforcing this doctrine without critical evaluation is cause for concern. In fact, the over-emphasis on *any* specific tactical process, including lessons from Afghanistan, must be avoided, while tactical adaptation should be encouraged.[39] Defining some drills as the 'basics' is dangerous as it implies that these drills are absolute and discourages innovation. Developing suitable training that focuses on defeating a threat is a responsibility of command from platoon to unit — and it is a decision that should be based on sound analysis. Most important of all, simply reverting to old models for the sake of it should not be tolerated. The Army has the opportunity to change the existing training continuum and avoid the perilous trend to predictable exercises, but it appears that potent post-revisionism is already beginning to take hold.

## The current training environment

When responding to the Army's cries for training scenarios to exercise 'a war' rather than 'the war', current training models employ fixed/acceptable force ratios of predictable Musorian enemy elements. To add 'complexity', scriptwriters introduce IEDs to disrupt conventional military manoeuvre.[40] However, the inclusion of IEDs in foundation warfighting does not make war inherently complex; the unknown attributes of Australia's future adversary are what makes war challenging. Unless a reinforced Musorian battalion has conducted an amphibious lodgement in Shoalwater Bay, the Army's next battle will *always* be different to the exercises it has conducted. The truth of preparing for 'a war' rather than 'the war' is that the Army can never be fully prepared — and this is a reality with which the Army must become comfortable.

However, the uncertainty of the next war does not condemn the Army to be eternally 'unprepared', but rather reinforces the necessity to develop training opportunities that promote adaptation rather than the perfection of drills or existing tactical models.[41] To achieve such training environments, the Army's commanders

must be confronted with a particular cause for concern. To fully test its ability to adapt, the Army needs a realistic and considered adversary that challenges, adapts, recognises and accepts risk and, most of all, fights to win the land battle.[42] An adversary of this calibre presents the Army with an uncomfortable risk — the prospect of defeat.[43] Institutionally, the Army is afraid of failure, fearful that all 'traffic lights' may not be green. Yet, training and exercises should be centred on learning and improvement, identifying weaknesses and developing solutions, not purely on certification or military success.[44]

The Army will not learn valuable lessons through training scenarios that continue to place the Blue Force in favourable circumstances. Most militaries learn quickly when under threat and rate of adaptation is an essential element of thriving in a competitive learning environment.[45] The Army should be consistently challenged, and training scenarios should encourage adaptation at all tactical levels of command to allow the organisation to quickly and effectively adapt to defeat an adversary — whatever form that adversary may take. Ultimately, a focus on adaptation rather than the strict application of drills against a consistent near peer enemy will mean that the Army will not be as efficient in the annual Hamel scenario (in fact the Australian commander may even lose), but it will be better placed to respond to the unknown threat when it deploys on the next operation.

## An alternative path — recommendations to promote tactical adaptation

Currently, the Army is rightfully concentrating on mid-intensity conventional warfare as no military can risk ignoring the threat of unlimited state-centric conventional war.[46] Yet a conventional training focus does not preclude the Army from introducing scenarios that promote tactical adaptation in its junior commanders. The blind application of small team tactics that grew out of conflict in the twentieth century will not be sufficient to counter the next unpredictable threat.[47] In fact, testing tactical adaptation will not be easy. However, some achievable recommendations include:

- All exercises in a Force Generation Cycle should be connected, just as real conflict has peaks and troughs. Time between exercises should be used by staff to consolidate and evolve tactics for subsequent operations.
- Commanders should concentrate on improving tactics against a conventional threat force in mid-intensity warfighting.
- Exercise adversaries, both state and non-state, should be fully developed and introduce unknown tactics or equipment during the exercise cycle with increased effectiveness against Australian elements. Such unpredictability may include small-team, swarm, airborne or subterranean tactics, or flame, electronic, cyber, chemical, biological, radiological and nuclear warfare.[48]
- Australian intelligence staff should identify changes and vulnerabilities in the exercise adversary's threat model.
- Commanders should promote innovation in their subordinates to develop and practise tactics between exercises to defeat such a threat.
- All units should employ newly developed tactics to defeat threat systems in detail, or recognise changes in the threat system to further refine subsequent tactical actions.
- Following major exercises, units and formations should review their ability to be tactically adaptable and preserve lessons of innovation and creativity in the face of an unknown threat.
- Commanders should be held to account if tactical adaptation is not achieved.
- Units should be proud of and rewarded for their capacity to be tactically adaptable.

Some commentators will suggest that introducing unpredictability of this nature into the Force Generation Cycle is unfeasible and would conflict with the already rigorous certification requirements to reach training levels and standards. They may also argue that exercises are already too limited by resources and that core skills at the lower tactical level must still be reinforced. These arguments are certainly valid. However, the gradual introduction of unknown elements into the training continuum represents an attempt to both develop core skills and promote tactical adaptation within the existing constraints of the training construct. The reality of not promoting tactical adaptation is that Australian TTPs will only evolve when confronted with the catalyst of casualties on operations, as was the case in Afghanistan.[49]

More importantly, the Army's ability to quickly adapt to a new threat will be hindered. A 'game-day player' attitude will be insufficient if such unpredictability occurs in a state-based conventional force where the tempo of conflict could produce crippling casualties before the Army realises that the enemy is not a Musorian battalion.

## Conclusion

The Army is in a unique position to effectively shape its training focus to prepare land force elements for future operations. It possesses the tools, through the IPB and MAP, to accurately derive and exploit the vulnerabilities in a threat system. The Army's recent combat experience verified the importance of revising TTPs when faced with a threat that does not conform to a known model. However, a surge of aversion to 'the Afghan model' and an emphasis on the 'perfection' of the pre-East Timor days threatens the loss of the Army's only recent experience of adapting tactics. Without robust discussion between military professionals and revision of the current training model, the Army will be poorly placed to account for the threat and terrain in the next battle. The Army must reconsider the lessons of Afghanistan, promote a learning model of tactical adaptation and introduce unpredictability into training scenarios to prepare soldiers for the volatility of the next threat. Only through reform will the Army finally be postured to adapt and overcome Australia's future adversaries.

## THE AUTHOR

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# ARMOUR

## The Use of Armoured Personnel Carrier Squadrons within Combat Brigades

Major Mitchell Watson

## ABSTRACT

This article examines the role and use of one of the largest and most flexible sub-units in a combat brigade, the armoured personnel carrier (APC) squadron. It contends that, without a better understanding of all aspects of the combat brigade across the land force, the Army may not utilise its combat assets to best effect. Based on the author's personal experience, the article explains the best use of an APC squadron and contrasts the armoured mobility of the APC with the protected lift provided by the Bushmaster vehicle. It also provides recommendations for future battlegroup and brigade commanders on how to utilise the APC capability for optimal effect.

## Introduction

This article is designed to convey my observations on and recommendations for the use of an armoured personnel carrier (APC) squadron within the Australian Army's modern manoeuvre brigade. The target audience includes current and future battlegroup and brigade commanders, and staff officers and planners across the Army. I write from the perspective of the APC squadron commander during both the 2013 Armoured Cavalry Regiment (ACR) trial with the 3rd Brigade and within the 1st Brigade in 2014. A combat brigade under the Plan Beersheba construct provides a brigade commander with the ability to task-organise his forces in different ways depending on the mission and the brigade's employment within the spectrum of conflict. The employment of the combat brigade's APC squadron ought to be well considered as it is a sub-unit with the capacity and flexibility to be used in many different ways and for a range of different functions.

This article is designed to stimulate thought and debate among professional military thinkers on how to best utilise APC squadrons within the Plan Beersheba construct. The key themes include the blurring of the lines between APCs (a tracked armoured fighting vehicle) and Bushmasters (a wheeled transport vehicle) over the past decade, the differences between mechanised and mounted infantry in a brigade, the grouping and regrouping considerations for a brigade headquarters, and a discussion of the two roles of the APC as armoured mobility or cavalry. The article concludes with a number of recommendations for the use of an APC squadron within the combat brigades of the future.

## Definitions of armoured mobility (APCs) and protected lift (Bushmasters)

Before discussing how best to use APC squadrons within combat brigades, I will start by defining what armoured mobility and protected lift assets are and what they do. Armoured mobility refers to the transportation of forces in and the movement of armoured fighting vehicles close to enemy locations. Armoured mobility units provide a high degree of protection from both ballistic and concussive blast trauma, as well as improved protection for the infantry carried inside the vehicle. The Australian Army currently uses an APC — the M113AS4 — in the armoured mobility role. In the future, the Land 400 project may deliver an infantry fighting vehicle (IFV) variant which may provide better protection and firepower to the Australian Army.[1] Protected lift units (protected mobility vehicles such as the

Bushmaster) transport forces around an area of operations. They provide some degree of protection, particularly against concussive trauma, but are not designed to be employed in a fight against a defended enemy.[2]

## The Army's blurring of the lines (APC versus Bushmaster)

APC squadrons existed within the Australian Army from the 1960s until 2006 and their use is not a new concept. However, in recent times, and particularly following the arrival of the Bushmaster, the role of an APC unit has been confused with that of a transport unit. Under the 1970s Armoured Corps regiment model, APCs were found in the 2nd, 3rd and 4th Cavalry Regiments and, until 2006, they were also located in B Squadron, 3rd/4th Cavalry Regiment (B Sqn, 3/4 Cav). Since 2006, B Sqn, 3/4 Cav, an Armoured Corps unit, has operated with the Bushmaster primarily in its protected lift role, causing confusion over the role of the Armoured Corps and the use of the Bushmaster. Bushmasters were only ever designed to enhance the protection of infantry while moving as far as an assembly area. While the Bushmaster's ability to save lives was proven in Iraq and Afghanistan, its use prompted a generation of commanders and soldiers to believe that every vehicle can be employed in the same manner — as a transport vehicle.

The use of the Bushmaster on operations marked the initial blurring of lines between transport and armoured mobility. To further confuse the issue, between 2006 and 2013, only the 1st Brigade was equipped with the M113AS4, which meant that the bulk of the Army was not exposed to armoured mobility and generally had more experience in protected lift. As a result, the majority of the Army saw a transport asset, the Bushmaster, as the means to close with an enemy. The M113AS4 was a little-known capability outside the 1st Brigade but was largely assumed to be a Bushmaster with tracks. The Army now risks misusing or underutilising the APC squadrons that are currently equipped with the M113AS4.[3] The use of the Bushmaster within B Sqn, 3/4 Cav and its employment as the primary troop-carrying vehicle on recent operational deployments, coupled with the recent reintroduction of the M113AS4 to the Armoured Corps, have created the impression that APCs are simply a 'lift' asset. Unsurprisingly, this has caused confusion on the use of APC squadrons at the tactical level.

## The two roles of APC units — armoured mobility and cavalry

APC units have two roles — armoured mobility and cavalry — and they can be used for intelligence, surveillance and reconnaissance or manoeuvre. Thus far I have discussed the APC strictly in terms of its armoured mobility role — the role that I expect APC squadrons are most likely to fill in an infantry-heavy combat brigade. The armoured mobility role is the most common and the most easily identifiable within the Australian Army so I will discuss this first. The lesser known and possibly more controversial use of APCs in a cavalry role will be the subject of a later section.

### Armoured mobility role

APC units, regardless of vehicle type, have historically had the capacity to carry and fight with dismounted troops. The APC squadrons of the armoured cavalry regiments are optimised and fitted to fight with the fighting elements of an infantry battalion including the heavy weapons platoon or the mortar platoon, plus some engineers and artillery observers. Under Plan Beersheba, with the adoption of one APC squadron per combat brigade, a squadron can provide armoured mobility to around a battalion's worth of infantry, three artillery observers and two combat engineer troops. The squadron can be task-organised in whatever configuration of combat teams and battlegroups the brigade commander and battlegroup commanders see fit. In the armoured mobility role, the APCs provide an infantry commander the ability to manoeuvre his force mounted within the APCs, to utilise the APCs as a separate combat arm physically separate from his dismounted infantry,[4] or even in a combat service support (CSS) role.[5] In terms of supporting indirect fires, the APC squadron has the capacity to provide armoured mobility to one mortar platoon and enables artillery observers to move around the battlefield with the protection of armour. The mortars can fire from within the M113AS4, allowing a battlegroup commander to deploy his mortars quickly and with protection. The use of APCs at the higher end of the spectrum of conflict is optimised when they are task-organised with infantry, tanks, artillery observers and engineers. In essence, when employed in a combat role, APCs support the movement of troops in order to apply firepower and effects to gain positional advantage.

## Cavalry role

APC units are sensors and a potential source of information like every other person or unit on the battlefield and they can be employed as cavalry.[6] The individual vehicle craft used in manoeuvring armoured fighting vehicles is common to all vehicles in all roles, and is typical of the drills common to all armoured crews as specified in *LWP-CA (MTD CBT) 3-3-1 - Mounted Minor Tactics*. It is not a dark art to manoeuvre different types of armoured vehicles. The performance of cavalry soldiers in the reconnaissance role is enhanced by such skills as the use of ground to remain undetected and stealth in approaching an enemy location. The officers, non-commissioned officers (NCOs) and soldiers who are members of APC squadrons are highly capable cavalry soldiers trained in mounted reconnaissance. They will have served in an Australian light armoured vehicle (ASLAV) squadron or will have been exposed to mounted reconnaissance through training at the School of Armour.

While the crews of an APC squadron are proficient in the cavalry role, the M113AS4 has its limitations and is not as capable as the ASLAV or many other purpose-designed reconnaissance armoured vehicles. The sighting systems are not thermal-capable and cannot extend vision as far as those of other reconnaissance armoured vehicles. In addition, the two-man crew limits the amount of time an APC section can remain in an observation post. The APC's armament is not designed to defeat other armoured vehicles and thus M113 units are more likely to withdraw if detection by the enemy is possible. Despite this, a combat brigade has little depth in its armoured vehicle reconnaissance and APC organisations can supplement the ASLAV squadron, can be attached as the battlegroup reconnaissance asset for an ACR-based battlegroup, or act as an independent reconnaissance organisation in less risky areas of the battlefield. An APC cavalry organisation would be particularly potent in the reconnaissance role if grouped with dismounted reconnaissance soldiers, reconnaissance equipment such as thermal sights and laser range finders, and other assets such as electronic warfare, tactical unmanned aerial vehicles or helicopters. Indeed, when this concept was adopted during the 3rd Brigade's Combined Arms Training Activity in 2014 when B Sqn, 3/4 Cav was employed in a cavalry role, the APCs were grouped with some of the dismounted reconnaissance soldiers from the brigade and performed well in support of the brigade plan. While the M113AS4 has its limitations in the cavalry role, the Land 400 project will deliver a new vehicle that may be more capable in both the cavalry and armoured mobility roles. This is the subject of a later section.

An APC squadron is an inherently flexible unit crewed by officers, NCOs and soldiers trained to operate in both the combat and reconnaissance aspects of mounted manoeuvre. They can be employed to provide mobility for infantry and used as a cavalry organisation, particularly if they are task-organised with other reconnaissance elements.

## APC squadron headquarters

The APC squadron headquarters is an inherently flexible command and control node that can add significant value to the brigade or battlegroup plan in either the armoured mobility or cavalry role. The headquarters is M113-based, has VHF communications, and is commanded by a combat corps (Armoured Corps) major. In the armoured mobility role, the headquarters can provide mobility to an infantry battlegroup commander, allowing him to traverse the same ground as his vehicle-mounted infantry and tanks while also commanding the battle. The APC squadron commander can assist in controlling the mounted manoeuvre on behalf of the battlegroup commander, adhering to his plan. The squadron commander can also command the APC squadron in its cavalry role (with its significant amount of armoured fighting vehicles) as described earlier. If the brigade plan requires a high degree of flexibility and good communications, the headquarters is ideally placed to command and control a mounted combat team including tanks, APCs, infantry, artillery observers and engineers. During Exercise Hamel in 2013, the APC squadron's headquarters commanded a combat team in a battlegroup and, later, the 3rd Brigade's reserve combat team. The APC squadron headquarters is a flexible command and control node that can operate in the armoured mobility, cavalry or combat team role.

## Issues and recommended solutions

The different types of fighting units within a combat brigade have increased the burden on the brigade headquarters in terms of training, detailed tactical planning and logistical support. The common brigade structures that will result from Plan Beersheba will have a positive effect across the Army, but will increase the pressure on brigade commanders and unit commanders to ensure that combined arms training achieves the appropriate standard and complexity. This section discusses my observations and recommended solutions to issues that are inherent within a combat brigade and related to the use of APCs.

### Combined arms training

There is a stark difference between the level of combined arms training provided to infantry and armour when the infantry are mechanised rather than mounted. The mechanised infantry of the past — infantry soldiers who used vehicles that were integral to their unit — were very powerful, particularly when grouped with tanks. In the current structure, mounted infantry — infantry carried in armoured vehicles from another unit (in this case the APC squadron) — are potentially just as potent as long as they are grouped with tanks, are familiar with the doctrine and are well practised in the Standard Operating Procedures (SOPs) of mounted units. Combined arms teams that include APCs, tanks and infantry require time and practice to ensure that they can fight to and through an objective and, for a number of reasons, there is a risk that this will be done poorly. The first reason, as described earlier, is that the roles of APCs and Bushmasters are currently confused and APCs are regarded by some as transport assets. Bushmasters and utility helicopters are a means of movement only, while the APC squadron's mobility allows Australian commanders to fight in a different way. Second, standard infantry battalions will be pulled in an ever-increasing number of directions demanding a growing number of different skill sets, including those required for the infantry's dismounted, airmobile and mounted roles.[7] A high level of skill in combined arms manoeuvre will only be achieved if all infantry and armoured commanders within a brigade invest time and effort into learning how to use combined arms theory with the Army's new order of battle. If unit commanders do not voluntarily conduct combined arms training in the barracks and in the field, the brigade's headquarters may need to ensure that this occurs. Planning and direction from key staff in the brigade headquarters may need to be more tailored towards combined arms training to prevent the different armoured cavalry regiments and infantry battalions from becoming too dissimilar to achieve the intent of Plan Beersheba, to be flexible and reasonably similar in utility.

### Command versus control

The most common point of friction in infantry-APC cooperation is the issue of who is in control of the battle and when. While *MLW 2-1-3 – APC Regiment*,[8] the most recent document to enshrine APC doctrine, is 30 years old, much of it remains relevant. For example, I would recommend that infantry commanders remain in *command* of the APC unit attached to them to maintain unity of command at all levels. However, it is prudent for the infantry commander to delegate *control* of the mounted fight to the senior mounted commander (tank or APC). An element of trust between commanders is essential and is linked to my previous point on the

need for regular training. The future ACR doctrine, the draft *LWP (CA) MTD CBT 3-3-7 – Armoured Cavalry Regiment*,[9] will be valuable reading for any staff officer or commander within a combat brigade.

### Grouping and regrouping of APCs

If a brigade is to field the majority of its units simultaneously, brigade headquarters faces an increased burden in planning the detailed regrouping within a combat brigade for both tactical and logistical reasons. Tactically, the Brigade Major and his operations staff will plan two down and task one down; however, in a combat brigade that contains an APC squadron, a brigade headquarters must plan three down. This is because an APC troop is designed to fight alongside an infantry company, and an APC troop is three levels of command down from a brigade headquarters.[10] The Brigade Major must be aware of the location of each APC troop so that he can plan the groupings of infantry companies with APC troops. This ability to plan down three levels is particularly important in a combat brigade given the paucity of mobility assets integral to the brigade, and because of the military axiom that there must be three of an asset in barracks to have two of them in the field (given medical issues, leave, courses, vehicle serviceability, etc). There may not be sufficient APCs, Bushmasters and helicopters to manoeuvre all the infantry, particularly as the mobility capacity of the brigade is dependent on the manning and serviceability of vehicles. There may be a need to provide armoured mobility to dismounted troops in sequence as opposed to simultaneously as is optimal. The Brigade Major will thus have a more difficult job managing regrouping than in the past.

Along the same lines, the brigade's S4 (the key logistics planner) must be aware of the tactical plan so he can appreciate how thinly the logistics assets of the ACR and the CSSB are stretched when regrouping occurs. The logistics assets of the ACR will be task-organised to support the armoured assets of the brigade by the Commanding Officer of the ACR, but the brigade S4 must be aware of the brigade plan so as to enable the manoeuvre plan. The brigade S4 staff, much like the Brigade Major's operations staff, will have a more difficult time managing the logistical support to the brigade if regrouping is to occur frequently. I recommend that, when regrouping between units in the future, the brigade headquarters issues a detailed 'regrouping order' much like the one that appears in the current multi-role combat brigade SOPs.[11] The direction to regroup is completed primarily at brigade headquarters level and a regrouping SOP inclusive of location, unit, radio frequency, timings, command status and likely mission is essential. Without such an SOP, a significant amount of friction will be induced and the risk of fratricide

will increase. 'Rapid regrouping' — regrouping in the middle of a mission — was attempted on several occasions during the ACR trial of 2013 within the 3rd Brigade. Given the communications suite, speed and mobility of the M113AS4 and the ability of Armoured Corps crewmen to conduct regular rendezvous procedure, APC units can be regrouped relatively quickly as long as the requisite planning is completed at brigade level. When a combat brigade is manoeuvring two or even three of its battlegroups simultaneously, the ability to group and regroup assets across the brigade will be an important skill for brigade staff.

**Brigade-wide exposure to APCs — cavalry and armoured mobility roles**

While Plan Beersheba is still being implemented, the temptation to use APCs exclusively in the armoured mobility role threatens to become a potential weakness in a brigade's reconnaissance plan. While war planners would need to consider the use of unmodified M113AS4s in a highly contested battlefield in the future, there have been operational examples in the past 15 years in which Armoured Corps and infantry soldiers have used the M113 in both the armoured mobility and cavalry roles. In the coming decades, the M113AS4 fleet is likely to be replaced by the IFV variant of the Land 400 project. The principle that the organisations that currently use APCs have an armoured mobility role and a separate cavalry role will remain the same when the Land 400 vehicles enter service. Therefore, the more exposure that all elements of the combat brigades have to the APCs in their armoured mobility and cavalry roles, the easier the transition to Land 400 in the future. The use of the APC squadron in either the armoured mobility or the cavalry role needs to remain a consideration for brigade and battlegroup commanders in the future, particularly with the relative reduction in mounted reconnaissance assets within the Army.

## Conclusion

APC squadrons are not new to the Australian Army, but their employment within a combat brigade will be new to many. When correctly grouped, trained and commanded, the combination of APCs, tanks, infantry, engineers and artillery observers amplifies the combat effectiveness of the combined arms team. This article has argued that the level of mounted combat skills previously attained by the mechanised infantry of old will be difficult to achieve unless there is sufficient drive from commanders to conduct combined arms training in barracks, in simulation and in the field. Pockets of enthusiasm within infantry battalions and armoured cavalry regiments will not be enough. APC units have an armoured mobility role

(picking up and fighting *with* infantry close to an objective, not to be confused with taking infantry to the assembly area like a Bushmaster) and a cavalry or reconnaissance role. For some this will be a simple and logical argument, while for others it will be anathema and something to be avoided.

That everyone on the battlefield is a sensor is not a contested argument, so the use of M113AS4s to supplement a reconnaissance plan should not be discounted, particularly if they are grouped with dismounted reconnaissance soldiers, electronic warfare assets or helicopters. That said, the M113AS4 does have its limitations. It was never designed to fight against another armoured vehicle and has relatively light armour and armament which makes it vulnerable to enemy attack. It was designed to suppress enemy infantry in a combined arms team containing tanks and dismounted infantry as a minimum. In the armoured mobility role, the M113AS4 is less vulnerable when coupled with tanks and infantry. In the cavalry role, the M113AS4 is better protected when sited in concealed locations, something that Armoured Corps officers and NCOs are trained to do.

Despite their limitations, APCs such as the M113AS4 can add value in both the armoured mobility and cavalry roles. The few occasions in the past when Australian soldiers have walked into battle provide sufficient evidence that armoured mobility will remain part of modern warfare in western armies. Within Australia's primary operating environment, there is every chance that the Army will be required to conduct combat operations in areas that are not permissible to wheeled vehicles such as Bushmasters, G-wagons or Unimogs. In East Timor, for example, M113AS1s were used in both the armoured mobility and cavalry roles. I would urge unit and brigade commanders to practise warfighting skills with the APC squadron of the brigade as the Bushmaster element held within the CSSBs will not always be the most appropriate vehicle on future battlefields. The M113AS4 represents an interim measure until the implementation of Land 400, which will introduce an armoured mobility variant designed to allow the Army's two combat corps, the infantry and armoured corps, to work together to approach and fight through an objective.

## THE AUTHOR

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## ENDNOTES

1 LCVS Project Team, Program LAND 400 – Land Combat Vehicle System draft preliminary operational concept document, July 2014 at: http://www.defence.gov.au/dmo/Multimedia/Preliminary_Operational_Concept_Document-9-5887.pdf

2 A **PMV** is any vehicle which has protective characteristics to enhance its survivability but is not designed to deliberately engage in combat within the direct fire zone. These vehicles tend to prioritise protection over firepower and tactical mobility, but may have greater operational mobility as a result.

An **APC** is an armoured fighting vehicle generally equipping armoured personnel carrier units or motorised infantry. An APC provides transport for its occupants to a secure area to dismount and then commence their assault on foot. Depending on its degree of protection, mobility and firepower, the APC may provide direct fire support and/or accompany the troops in the assault. APCs generally lack the protection of heavier protected IFV.

An **IFV** is an armoured fighting vehicle generally equipping mechanised and/or armoured infantry. These vehicles are specifically designed to fight with armoured units by transporting infantry into the assault at speed, under the protection of armour and suppressing fire. The infantry may remain mounted or dismount to assault with armoured vehicles and provide intimate protection.

3 D Squadron, 1st Armoured Regiment is the 1st Brigade's APC squadron and is based at RAAF Edinburgh, Adelaide. B Squadron, 3rd/4th Cavalry Regiment, is receiving its M113AS4s in 2014–2015 and will become the 3rd Brigade's APC squadron. It will be renamed 'B Squadron, 2nd Cavalry Regiment' when the 2nd Cavalry Regiment formally comes under command of the 3rd Brigade in 2015. The name of the APC squadron that will reside within the 7th Brigade was yet to be confirmed at the time of writing.

4 APCs can be used in any phase of war within the Manoeuvre BOS. For example, in offensive operations the APCs can be used in an attack by fire against a dismounted enemy, a support by fire against an entrenched enemy or in an urban zone, or as cut-off in support of an infantry assault. In defensive operations, APCs can support a counter-attack, a deception plan or provide intimate support to defend a battle position. These examples are not exhaustive.

5 For example, an APC section / troop can hold extra ammunition, food and water within the vehicle to resupply dismounted infantry in the reorganisation phase of an attack, or can assist in casualty evacuation in the event the ambulance capacity is overwhelmed in a mass casualty scenario.

6 The role of cavalry as defined in *LWP-CA (MTD CBT) 3-3-6 – Cavalry Regiment* is to 'locate, dislocate and disrupt the enemy through the conduct of offensive, defensive, reconnaissance and security activities both mounted and dismounted.' See p. 1-4.

7 Plan Beersheba concept of employment, Version 1.1 dated 19 May 14, p. 23.

8 *MLW 2-1-3 APC Regiment*, p. 9-9.

9 *LWP-CA (MTD CBT) 3-3-7 – Armoured Cavalry Regiment (draft)*.

10 Brigade (brigade commander), unit (ACR commander), sub-unit (APC squadron commander) and sub sub-unit (APC troop leader).

11 Multi-role combat brigade SOPs, Annex B to SOP 3.7 – Regrouping Order, p. 304 (B-1).

# LOGISTICS

## Logistics, Strategy and Tactics: Balancing the Art of War

Lieutenant Colonel David Beaumont

## ABSTRACT

This paper contends that the three primal constituents of the military art — strategy, tactics and logistics — must be united within the Australian Army's future concepts. If history is any guide, this will be a significant challenge for the Army's modernisation and planning. Yet the marriage of these components is not new. Indeed, Baron Antoine-Henri Jomini emphasised the inseparable nature of logistics, strategy and tactics in his classic work *The Art of War*. Other authors also argue that logistics cannot be considered in isolation; any attempt to separate it from strategy and tactics would render each of the three ideas equally meaningless. This article describes a number of factors which have conspired to dislocate strategy, tactics and logistics, and others that have simply reduced logistics to the point of banality. The article further argues that the propensity of the Australian Army to regard logistics as an ancillary science or a secondary concern dislocated from the greater theories of war has a detrimental effect on the development of its operational concepts. This has only been exacerbated by the introduction

of logistic ideas inimical to the true nature of war and which view logistics as a burden to be reduced rather than a function that enables combat potential. As the Australian Army reconciles its modernisation programs with its thinking on future war, it is critical that its operational concepts restore the inviolable 'triptych' of strategy, tactics and logistics. Without this, the Army risks failure in war — failure that is entirely preventable.

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*Logistics comprises the means and arrangements which work out the plans of strategy and tactics. Strategy decides where to act, logistics brings troops to this point.*

Baron Antoine-Henri Jomini
Precis de l' Art de la Guerre, 1838[1]

In predicting the character of future wars, it is sufficiently challenging to determine the way in which an army must fight without the added burden of considering the logistic support required to sustain it. Yet it is impossible to consider war without addressing all its aspects and influences. Martin van Creveld's opening to *Supplying War*, a seminal text that has attracted considerable academic debate, drew on the work of renowned Napoleonic-era theorist Antoine-Henri Jomini to highlight the importance of logistics to warfare. *Supplying War* confirmed that military logistics was not simply the administration of forces. Instead, logistics was described as fundamentally concerned with resolving questions of strategy and tactics and an inherently necessary — indeed a principal element — of the art of war.

During the considerable period that has passed since Jomini wrote *The Art of War*, the role of logistics within the theory of war espoused by Western militaries, including the Australian Army, has been diluted. As noted by Martin van Creveld when he returned to preface *Supplying War* some 30 years after its first edition, logistics has been conflated to the point of consuming everything from procurement to planning to war production.[2] Furthermore, and with special relevance to the Australian Army's future war debate, logistics has moved from being considered central to the theory of war to occupying the role of an ancillary science. As the Australian Army seeks to determine how it will fight the next war, it is critical for logistics to regain its fundamental importance so that it may properly underpin the way in which the Army fights in the future.

This article contends that, as the Army considers the potential wars of the future, the concepts derived from its analysis must reflect the equivalency of strategy, tactics and logistics. The approach taken is purposefully theoretical in nature and necessarily focuses on the land domain. Furthermore, given the extensive literature available, it does not seek to describe either strategy or tactics.[3] It is from theories that our foundational understanding of war is derived, and the theory examined here describes war from the perspective of armies. Therefore, this article first examines the ideas of those few key writers who have sought to coherently explain the relationship of logistics to strategy and tactics. Second, it seeks to contextualise these issues with particular reference to the Australian Army. Due to limitations of space, however, this discussion can only provide a cursory examination of these issues and is therefore largely diagnostic rather than prescriptive in its approach. Nonetheless, in seeking balance between strategy, tactics and logistics in the art of war, this article aims to stimulate debate so as to further develop the concepts that will determine how the Army will fight in the future.

## Logistics and the triptych

Logistics has always been vital to successful military operations, and many campaigns have been fought, won or lost because of it. Most commanders understand that, without the required resources, vehicles, personnel and other essentials, armies simply cease to be combat effective and plans are rendered worthless. Most would also agree that the most important role of the logistician in war is overcoming a 'seemingly endless series of difficulties' to prevent this outcome.[4] However, it is often only through failure that commanders realise that strategy, tactics and logistics cannot be considered in isolation from one another. For example, German Field Marshal Erwin Rommel, having lost his campaign in Africa, famously confirmed in a postscript that 'the battle is won and fought by the quartermasters before the shooting begins', a revelation that would have served him better at the outset of the campaign rather than at its conclusion.[5] That he embarked on his campaign without realising the importance of North African ports to the provisioning of his force, all the while deriding the Italians for their defence of their supply lines, presents clear evidence of the over-valuation of the tactical compared to the strategic or logistic.[6] Yet Rommel was hardly alone in diminishing the role that logistics plays in war before proceeding on an ill-fated campaign.

Logistics has never been regarded by commanders as the most attractive aspect of warfare in which they should invest their time. The derivation provided by the ancient Greeks — *logistes* or 'those skilled in calculating' — provides ample evidence that logistics can be portrayed as a highly uninteresting topic.[7] At the very least, such uninspiring views of logistics often prompt commanders to neglect to include it in the theories of war. Yet logistics cannot be related *to* warfare; in an unbreakable union with strategy and tactics, logistics *is* warfare. Having evaluated 170 years of US Army logistics, James Huston described this relationship eloquently, writing that military logistics delivers 'adequate potential or actual firepower or shock' to critical places and at critical times 'for achieving tactical and strategic aims'.[8] As a component of the military art, Huston regarded the primary aim of logistics as 'asking the right questions' to identify locations, times, objectives and threat situations relevant to the provision of material effort.[9] In analysing the 'generalship' of Alexander the Great, Major General J.F.C. Fuller went so far as to declare that supply was the basis of strategy and tactics.[10] However, neither Fuller nor Huston was the first to clearly enunciate the equivalency of strategy, tactics and logistics.

Baron Antoine-Henri Jomini, in *The Art of War*, examined logistics (albeit frustratingly briefly) at a time of transition in which logistics, strategy and tactics underwent considerable change. For Jomini, as a member of Napoleon's staff and an active participant in his wars, contemporary war revealed considerable logistic challenges that had to be overcome by commanders. At the risk of oversimplifying the circumstances, the scale of the conflict and, most importantly, the projection of military power over continental distances, brought to the fore issues of 'marches and camps, and of quartering, supplying troops'.[11] Prior to Napoleon's campaigns, the smaller scale and size of pre-industrial armies often allowed them to sustain themselves directly off the land, plundering or purchasing local resources and other supplies.[12] Jomini regarded his commander as possessing a virtually impeccable record of reorganisation to meet the new strategic, tactical and logistic needs of his enormous army.[13] However, as demonstrated in the ill-fated Russian campaign, the temptation to acquire a continental empire outweighed Napoleon's customary caution in recognising the limits of his logistics and lines of communication, and his ambitions were undone.[14]

As armies of the time developed logistic structures, formations and methods to support themselves, strategy and tactics were not 'liberated' from logistics but bound even closer.[15] Armies became larger, as did logistic requirements. As Jomini recounted, the changing characteristics of war, and the increasing mobility of

armies required new approaches to logistic problems.[16] Chiefs of staff and their subordinates became consumed with the supply and movements of armies, responding to plans that were often prepared by the commander in isolation.[17] Indeed the development of modern concepts of military logistics occurred virtually simultaneously with the emergence of what is now known as the 'operational art', a mental framework for decision-making which was — among other factors — shaped by the planning requirements to sustain large armies. Both logistics and the conception of the operational level of war therefore became instrumental factors in the establishment of military staff systems and hierarchies designed to organise modern armies.

It is unsurprising that Jomini's impressions of Napoleonic-era warfare led him to generate a number of ideas on what precisely comprised logistics — from the 'art of moving armies' to a more generalised role in the execution of 'strategic and tactical enterprises'.[18] Jomini was apparently perplexed as to where logistics belonged even within his own theory of war, opening Chapter 6 with:

> *Is logistics simply a science of detail? Or, in the contrary, is it a general science, forming one of the most essential parts of war? Or is it but a term, consecrated by long use, intended to designate collectively the difference branches of staff duty — that is to say, the different means of carrying out in practice the theoretical combinations of the art?*[19]

Jomini's questions may prompt the response that he was confusing the connection between strategy, tactics and logistics with effective staff work. This is certainly the argument of Falklands veteran and historian Major General Julian Thompson, who notes that the military staff of the time were so consumed by sustainment issues that any distinction between operational planning and logistics was barely noticeable.[20] Certainly Jomini's contemporary, the much venerated theorist Carl von Clausewitz, regarded logistics as nothing more than a 'subservient' function, despite begrudgingly accepting it as useful, if not necessary.[21] With logistics so vital to the planning of operations, it is impossible to argue that it is anything but central to the subsequent conduct of warfare. Nonetheless, in emulation of Clausewitz's view, and contrary to Jomini's conclusions, modern Western armies have long since viewed logistics as one of a number of enabling sciences that informs choices rather than as an inherent, inseparable function of the choice itself.

With the increasing complexity of warfare since Jomini's time, militaries have sought to specialise nominally 'subservient' functions such as logistics. However, this process has also perpetuated the disjunction of logistics from its formerly

intimate relationship with strategy and tactics. In the vernacular of Colonel George Thorpe's minor classic, *Pure Logistics*, 'applied' logistics attracts more interest than any reflection of the theoretical 'pure' form bound intimately into the art and theory of war.[22] Most modern Western militaries now regard military logistics as an ancillary applied science, among these the Australian Army, which describes logistics as the 'science of planning and carrying out the movement and maintenance of forces'.[23] In this mindset, logistics becomes less about victory and more about technocracy — a rational, logical, process-driven and calculated system of resource management. Without strategy, operations or tactics to constrain it, a scientific approach to logistics becomes an exercise in numbers, yet at times risks becoming completely devoid of context.

War is a remorseless teacher and, time and again, has proven to be no home for accountants.[24] Logistics is more than a science or method for calculating an idealistic path to victory. In reflecting on his time as senior coalition logistician during the Gulf War of 1991, retired Lieutenant General William Pagonis defined logistics as an 'action on reality'.[25] Beyond a simple reference for logisticians to apply judgement, intuition and experience to observable problems, Pagonis amplified the point that logistics is relative to context. Logistics, he argued, only possessed meaning in reference to the strategy and tactics being applied, and vice versa. While predicting 'movement' and 'maintenance' requirements for a force might be important logistic business, logistics is invariably a product of factors known only once the fighting begins. Yet paradoxically, as part of the 'theoretical combinations of the [military] art' and the choices of commanders, logistics itself influences the way in which a war might be fought, and therefore must be a determinant of the strategy and tactics used to achieve victory.[26]

These factors suggest that logistics is not only vital to any theory of war, but completely inseparable from its conceptual and theoretical understanding. Or, as Jomini wrote, as one of the principal elements of the art of war, logistics is essential for the 'formation and handling of a great Army'.[27] The relationship of logistics to tactics and strategy is thus highly intimate, this vital 'triptych' so critical that each element would be rendered equally meaningless if not considered alongside the others.[28] This means that the way in which an army fights, and the strategy it exists to serve, must be determined by logistic considerations, with appropriate attention paid by commanders, planners and logisticians to the fundamental character of the sustainment required. It is therefore self-evident that, as the Australian Army engages in a debate over the way future wars may be fought, it will be insufficient to assume that logistics is simply ancillary to the desired end.

## 'Qu'on ne me parle pas des vivres'[29]

> *All this will indicate the general influence that questions of supply can exert on the form and direction of operations, as well as the choice of a theatre of war and the line of communication. How far their influence will extend, and how much weight should be in the final analysis attached to the ease or difficulty of supply — those are questions that will naturally depend on how the war is to be conducted.*
>
> Clausewitz[30]

It is erroneous to suggest that the Australian Army has not considered logistics in its conceptual development. Certainly there would be no commander who did not already appreciate that proposed changes to manoeuvre formations will have profound implications for their sustainment, as will the ideas that determine their concepts of employment.[31] And so, in moving from being an 'army at war' to an 'army of preparation', the Australian Army has sought to determine whether its plans and concepts are sustainable. Over the last two years Headquarters Forces Command, in implementing the Army's Plan Beersheba, has developed a combat service support concept of operations for the combat brigade (CSS CONOPS) which is virtually unique in that it seeks to balance the tactics of the combat brigade with the reality of actual force structure and logistic limitations.[32] However, in the broad scope of the Army's conceptual development, such a construct represents the exception rather than the rule. There is little evidence to suggest that the influence of logistics on strategy and tactics has been a topic of more than passing interest.

The Army has not always effectively balanced strategy, tactics and logistics within its concepts, and there are a number of key reasons for this. It is easy to argue that, because logistics lacks the appeal of strategy and tactics, it has been afforded less attention than it rightfully deserves.[33] The fact that examining logistics tends to reveal weaknesses rather than strengths is also a powerful disincentive for analysis, a problem almost certainly linked to the absence of detailed testing and evaluation of logistics during major Army exercises. However, this is not simply a problem of the skewed perspective of the combat arms. Very few logisticians write on logistics without being compelled to do so, let alone engage in debate concerning the future of warfare. Fewer still choose to comment on combat tactics or strategy, given the perception that this is outside their traditional area of expertise. Thus, it is unsurprising that debate on the relevance of logistics to the development of new strategies, operational concepts or tactics has stultified.

To some extent the limited interest in understanding the nature of logistics has been a consequence of the Army's good fortune. Operational logistics has been relatively uncomplicated for the modern Australian Army. The Army of the post-Vietnam era has been fortunate that its logistic capabilities and capacities have not been stressed to a state of collapse by virtue of strategy and tactics although, admittedly, it has been close on occasion. As historian Bob Breen writes, in East Timor the Army flirted with disaster given its tenuous ability to sustain the force, its logistic capacity barely adequate to support what the operation demanded.[34] Preceding years of budget cuts and the outsourcing of logistic capabilities to the private sector or joint agencies produced a hollowness that belied the Army's logistic capacity to support the projection of military power from Australian shores.[35] Yet, as Thompson writes, when 'the experience of war recedes … logistics tends to take a back seat to the more glamorous tactics and strategy.'[36] A decade of wars of choice, in which the forces deployed have been scrupulously designed and structured to suit the capacity — or lack thereof — of the logistic elements sustaining them, has also contributed to the supplanting of valuable lessons within the corporate memory. Moreover, the Australian Army's historical preference for integration into coalition forces and their extensive support networks has meant that its weaknesses in logistics have remained obscured.[37]

Future wars may mean that the Army cannot absorb logistic risk into its force generation cycle, and current choices will resonate in the outcomes of the future. As the Army seeks to redirect its attention to 'high-intensity' conventional warfighting and operations within the urban-littoral, where logistic problems become particularly acute, reconciling strategy, tactics and logistics will only increase in importance. Vital documents such as an updated *Future Land Operating Concept*, due for release in 2015 by strategic planners and critical to the future shape and modernisation of the Army, will only be relevant if logistic capabilities can support its ideas. Given the current significant limitations on logistic capacity within the Army, questions of supply will undoubtedly shape the form and direction of the way such concepts are expressed, perhaps even to the extent that the Army's very conceptions of battle will be tested.[38] As demonstrated in the experimental Exercise Headline 2014, while the future armoured cavalry regiment might be a potent tactical advancement, it was regarded as virtually unsupportable without substantial revision of the existing methods for its supply and support.[39] This is one of the reasons that controversial concepts such as the CSS CONOPS are so important — they attempt to better align the proposed tactics of the combat brigade with the logistic capability and capacity available to support it.[40]

The problems identified in experimentation or future planning may cause considerable discomfort, as may the solutions, but it is only through taking such a disciplined, planned approach that the Australian Army can prepare effectively for the future. The only alternative to this process resides in guesswork or the misapplication of ideas from other sources — ideas that are seductive yet fundamentally divorced from the theory of war. Unfortunately, the Army (and the Australian Defence Force more broadly) has been particularly adept at taking these easier steps. Already there have been successive logistic concepts introduced, reinforced by ideas emerging from civilian business schools, which tend to mesh poorly with proposed strategy and tactics, if not with combat more broadly. The most deficient use the ratio of logistic troops to combat forces as a measure of military efficiency, while proponents express their certainty that logistic requirements can be met by lower levels of manpower and 'efficient' systems irrespective of the context of war or strategy and tactics. Popular concepts such as 'distribution-based logistics' and 'lean logistics' adopted from supply-chain theory have captured the imagination of many military professionals compelled to achieve more with less.[41]

However, where these ideas tend to falter is in combat. In misapplying ideas developed specifically for the commercial sector, military concepts actually suborn the important role logistics plays in delivering combat power. What really matters in logistics is not whether the 'tooth to tail' ratio can be kept to a minimum, but how much firepower can ultimately be used on the enemy.[42] Logistics is not a burden to be mitigated, but rather is that capability that endows a combat force with its potential to fight — to paraphrase the title of academic John Lynn's book, 'Mars must be fed'.[43] With this in mind, 'solving' logistic problems without understanding how the force applies strategy and tactics in a particular situation is spectacularly and obviously flawed. At its worst, logistics operating beyond the strategy and tactics of war produces hollowness, a vulnerability that only reveals itself when the viability of a force is tested in battle. Although he was consumed with the operational and moral rather than material aspects of war, Clausewitz warned that:

> *Ability to endure privation is one of the soldier's finest qualities; without it an army cannot be filled with genuine military spirit. But privation must be temporary; it must be imposed by circumstances and not by an inefficient system or a niggardly abstract calculation of the smallest ration that will keep a man alive. In the latter case it is bound to sap the physical and moral strength of every man.*[44]

In considering Clausewitz's words, the Army must not forget that war is not about obscure arrangements based on the fine detail of military science or arguments over semantics. While logisticians may now describe logistics using terms such as 'efficient' or 'effective', such false dichotomies do not serve the soldier well. What is more important is that, when tactical and strategic methods are designed, they are complemented by an economic logistic plan that reflects, respects and adapts to the characteristics of the war that will be fought.

Nonetheless, it is important to avoid overly venerating the artistry required to balance strategy, tactics and logistics at the expense of what Jomini called the 'science of detail'. Without appropriate concern for detail, art is hollow and vacuous. However there comes a point at which the Army must align its sustainment methodology with the characteristics of how it is to fight, rather than basing its methods on abstract ideas. Solutions predicated on what can be achieved efficiently in barracks, such as the business solutions described earlier, are unlikely to be equally applicable to military operations. Analysing spreadsheets of calculations and volumes of data in the interests of seeking scientific efficiency, while being immensely useful to planning, will never guarantee success on the battlefield. On the other hand, logistic concepts created in full cognisance of tactics and strategy, and vice versa, just might.

It would therefore be an understatement to suggest that the Army's current planners face a considerable challenge in realigning logistics to strategy and tactics in the concepts currently being developed. As war is subjective, determined by an incalculable variety of factors and influences, it will be difficult for concept writers to properly understand how a force should be sustained until it has been constituted or commences operations.[45] Given that they are relative to time, place and circumstance, logistic requirements will always be determined by situations within the broader military campaign.[46] But so too will strategy and tactics, ideas that are themselves variable yet are defined by logistic systems, structures and behaviour at a fundamental level. Support for a priority or diversion of a commander's attention to another main effort will inevitably have implications for the sustainment, and by extension the rate of effort, of other elements of the force. That scenario-based experimentation in Exercise Headline 2013 revealed that three evenly weighted battlegroups within a combat brigade could not be sustained concurrently is an unsurprising testament to this truism.[47] Noting this, history is replete with reminders that an army's logistic formations and frameworks may never be employed as conceived, thereby making it difficult to fully understand how a logistic plan might shape strategy or tactics.[48] However, by properly unifying strategy, tactics and logistics in the Army's operational concepts, it is possible to, at the very least, prepare forces for the inevitable friction of war.

There are many other problems and concerns that will influence the development of the Army's future concepts, not least of these the implementation of current concepts such as the concept of employment for the reinforced combat brigade. Issues such as the great disparity of opinion within the Army logistic community have not been explored in this article, but will also undoubtedly shape the way that logisticians contribute practically to achieving this outcome. However, it is worth dwelling on one final point: it is unlikely, despite the pleadings of many within the organisation, that the Army will be able to afford (both figuratively and literally) to address the considerable hollowness present within its logistic capabilities. In the current fiscal environment, understanding how to be economical with logistics will be essential if the Army is to be successful in war. Imaginative solutions to any perceived logistic weakness must appear in future concepts, and this can only occur if logisticians and others properly understand the nature of the strategy and tactics they support. With this in mind, it is no longer sufficient for logisticians to merely 'direct little, influence everything'.[49] They must be involved in, if not lead, the development of sensible solutions to emerging challenges in war rather than simply critique from the periphery of the debate. This way, logistic plans will not only confirm what might be desirable, but what is actually possible.[50]

Of course, the challenge for the combat arms is no less significant and they must devote their own time to the study of all aspects of the triptych. This goes beyond forming close working relationships with logisticians, or simply interacting through formal training and during various courses as is often the case. This is because, as van Creveld writes, logistics 'is complex in the sense of making prolonged (and expensive) study essential'.[51] It is a problem exacerbated by the introduction of new technologies and operational requirements. It is striking, albeit perhaps unsurprising on reflection, that many of the most prominent writers on modern logistics have not been logisticians, but members of the combat arms whose views have been shaped by personal experience.[52] They reached the realisation that war will not tolerate the uninformed when it comes to logistics. Despite this, there are very few principles or theoretical insights on the nature of war to guide future learning and, despite the enormous volume of literature on military history and theory, logistics often remains ignored or treated in fragmented fashion.[53]

If Jomini's thesis on logistics — that logistics is a principal component of the military art — holds true in the modern age, now is the time to address the Army's understanding of this crucial topic. Education, particularly of the Army's officers and leaders, will be critical in overcoming existing vulnerabilities. The union of strategy, tactics and logistics must be nurtured through realistic training in collective activities

such as Exercise Hamel, and exemplified in human behaviour.[54] A logistic narrative that explains how logistics contributes to modern land power in the Australian context would be equally valuable in structuring future debate within the Army. But it may be that the solution will not simply be found in improving interaction between training schools, developing new approaches in general career courses and organisations or introducing new ways of thinking about logistics. There are quite clearly cultural overtones to this discussion on strategy, tactics and logistics. Even Jomini, in revising his original edition of *The Art of War*, spoke of 'prejudices consecrated by time' that had initially limited his own conclusions on logistics.[55] Commanders will therefore play a vital role in achieving a balance between strategy, tactics and logistics as they prepare their forces for future wars. When implementing the concepts of the future, they will need to understand how logistics determines the way forces fight as Fuller did through understanding Alexander the Great's successes, and Rommel did in addressing his own failures.[56] If not, as history confirms, when it comes to actual warfare, they will be given little choice.

## Conclusion

This paper has described logistics in terms of the theory of war in an attempt to influence the development of the Army's future concepts. Through discussion of Jomini's *The Art of War* and other histories, it has argued that logistics is absolutely inseparable from strategy and tactics, supported by Huston in his concept of the 'triptych'. This might be an uncomfortable idea, particularly for those who subscribe to the theories of eminent thinkers such as Clausewitz who cast logistics as merely a subservient constituent of the theory of war. Yet logistics cannot be subservient or a mere enabler to a plan; recent trials and experimentation have repeatedly confirmed that logistics exerts a fundamental influence on the way that forces actually fight as described by strategy and tactics. While some may dismiss this article as largely diagnostic, lacking prescriptive solutions to the problems identified, the proper analysis of logistics and its incontrovertible link with strategy and tactics requires a paper of far greater stature and scope. If this article simply acts to prompt discussion or criticism, the Army will be richer for it. Whatever the case, the Army must address the challenges identified as it examines the conduct of future warfare, for to avoid doing so will come at considerable cost in the future.

The current discourse on future war within the Army provides scant acknowledgement of the importance of logistics as a principle art of war — even by the Army's logisticians. This is not to say that the Army's logisticians do not

understand the nature of war, or that the combat arms do not appreciate the importance of logistics in their own success. Rather, it seems that the fundamental importance of logistics to the art of war remains ambiguous. While Jomini's work has formed the basis of this paper he, like many writers, provides only the briefest glimpse of this component of the art of war in a way that is explicitly useful to the modern Army planner. Therefore the Army, if not Defence more broadly, must devote time to examining the theory of war in terms of its own unique requirements. Valuable histories and other works can assist in the Army's ongoing modernisation and in aligning the triptych of strategy, tactics and logistics in future concepts. With the likelihood that logistics will attract greater focus in the future, the need for disciplined study of its basic principles is evident. This must be supported by experimentation and planning that seeks equivalence between strategy, tactics and logistics, just as the CSS CONOPS has sought to achieve. To implement this now, in a time of preparation and reconstitution for the Army, is an opportunity that cannot be missed.

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## ENDNOTES

1 A.H. Jomini, *The Art of War*, translated from French by G. Mendell and W. Craighill, US Military Academy, 1862, p. 69.

2 M. van Creveld, *Supplying War* (2nd edn), Cambridge University Press, UK, 2004, p. 241.

3 This article uses the concepts of strategy and tactics defined by Clausewitz. See C. Clausewitz, *On War*, translated by M. Howard and P. Paret, Princeton University Press, USA, 1989, p. 128: 'tactics teaches us the use of armed forces in the engagement; strategy, the use of engagements for the object of the war'. This article considers the combination of strategy, tactics and logistics as forming a military operation.

4 Van Creveld, *Supplying War*, p. 231.

5 Ibid., p. 200.

6 Ibid.

7 W. Kaegi, 'Byzantine logistics: problems and perspectives' in J. Lynn (ed), *Feeding Mars – Logistics in Western Warfare from the Middle Ages to the Present*, Westview Press, USA, p. 39. Jomini actually regarded the term 'logistics' as corresponding to the French term 'marechal-general des logis' ('logis' meaning 'quarters' or 'lodging') as described by Falk in his preface to the e-publication of Thorpe's *Pure Logistics*, republished by the US National Defense University (p. xvii). Jomini cited the German translation of this term as quartiermeister, one responsible for the siting of camps and coordinating 'marches'. See Jomini, *The Art of War*, p. 182.

8 J. Huston, *The sinews of war: Army logistics 1775-1953*, Office of the Chief of Military History, US Army, 1966, p. 655.

9 Ibid., p. 656.

10 J.F.C. Fuller, *The Generalship of Alexander the Great*, Eyre & Spottiswoode, London, 1958, p. 52, cited in D. Engels, *Alexander the Great and the logistics of the Macedonian Army*, University of California Press, 1978, p. 2.

11 Jomini, *The Art of War*, p. 69.

12 Lynn, *Feeding Mars – Logistics in Western Warfare from the Middle Ages to the Present*, pp. 10–11.

13 J. Thompson, *The Lifeblood of War: Logistics in Armed Conflict*, Brasseys, UK, 1994, p. 3.

14 G. Thorpe, *Pure Logistics*, National Defense University, USA (1917), 1986, pp. 18–20. Thorpe regarded Napoleon's most significant failure as the improper use of his staff to control and coordinate logistics in the context of the unfolding strategic and tactical campaign.

15 Lynn, *Feeding Mars*, p. ix.

16 Jomini, *The Art of War*, p. 182.

17 Thompson, *The Lifeblood of War*, p. 6. As Thompson notes, this relationship persisted well into the twentieth century. For example, Ludendorff's title as Chief of Staff to Hindenburg was First Quartermaster General. In Germany, the evolved position of Quartermaster General was as Director of Military Operations.

18 Jomini, *The Art of War*, p. 69.

19 Ibid., p. 252.

20 Thompson, *The Lifeblood of War*, p. 6.

21 Thorpe, *Pure Logistics*, p. 10.

22 Ibid., pp. 5, 10.

23 Australian Army, *Combat Service Support (Developing Doctrine)*, Land Warfare Development Centre, Puckapunyal, 2009, p. 1-1. As the Australian Defence Glossary notes, this definition is consistent with joint doctrine, single service doctrine and the NATO glossary.

24 Van Creveld, *Supplying War*, p. 202.

25 W. Pagonis, *Moving Mountains*, Harvard Business School Press, USA, 1992, p. 204.

26 Jomini, *The Art of War*, p. 252.

27 Jomini assessed the five components as: strategy, grand tactics (analogous to operations), logistics, tactics of the different arms, and the 'Art of the Engineer' which referred primarily to siege craft. See *The Art of War*, p. 66.

28 Huston, *The sinews of war*, p. 656.

29 'Let no-one speak to me of provisions', Napoleon, speaking to his staff, cited in Thompson, *The Lifeblood of War*, p. 3.

30 Clausewitz, *On War*, p. 330. Clausewitz considered logistics 'subservient' to strategy and tactics.

31 Colonel R. Hatcher, J. Martin and Lieutenant Colonel K. Burgdorf, 'Sustainment for the Army of 2020', *Sustainment*, May–June 2014, US Army, Army Logistics University, http://www.alu.army.mil/alog/2014/MayJun14/PDF/125006.pdf, accessed 1 July 2014, p. 27.

32 Headquarters Forces Command, *Concept of Operations for Combat Service Support for the Reinforced Combat Brigade*, Australia, 2014 (classified, available on the Defence Protected Network).

33 J.C. Moreman, *A triumph of improvisation: Australian Army operational logistics and the campaign in Papua, July 1942 to January 1943,* PhD thesis, University of New South Wales, Australia, 2000, p. 19.

34 B. Breen, *Struggling for self-reliance: four case studies of Australian regional force projection in the late 1980s and the 1990s*, ANU e-press, Australia, 2008, pp. 162–63.

35 Ibid., p. 163.

36 Thompson, *The Lifeblood of War*, p. 3.

37 Moreman, *A triumph of improvisation*, p. 24.

38 Clausewitz, *On War*, p. 330.

39 Exercise Headline 2014 Quicklook report (classified). The experiment demonstrated that realisation of the proposed armoured cavalry regiment capability would be inhibited by the inability to divide sub-units. 'Disaggregated manoeuvre' was rendered impossible by the absence of sufficient logistic force elements.

40 *Concept of Operations for Combat Service Support for the Reinforced Combat Brigade*, Australia, 2014.

41 These ideas are integral to achieving effective business processes in Defence, particularly at the strategic level. Papers such as *Australian Defence Logistics: the need to enable and equip logistic transformation* by G. Waters and J. Blackburn, Kokoda Paper No. 19, Kokoda Foundation, 2014, at: http://kokodafoundation.org/Resources/Documents/KP19%20LogisticsPaperWebFINAL.pdf (accessed 3 July 2014) contain useful practical guidance on the employment of these processes. However, they rarely dwell on the implications of these ideas for combat, or for their use outside the peacetime setting.

42 Huston, *The sinews of war*, p. 674.

43 Lynn, *Feeding Mars*, p. i.

44 Clausewitz, *On War*, p. 331.

45 Lynn, *Feeding Mars*, p. 23.

46 Huston, *The sinews of war*, p. 667.

47 Exercise Headline 2013, post-activity report (classified).

48 Van Creveld, *Supplying War*, p. 236.

49 Hatcher et al., 'Sustainment for the Army of 2020', p. 27.

50 Thorpe, *Pure Logistics*, p. 74.

51 Van Creveld, *Supplying War*, p. 260.

52 Examples, as cited in this paper, include Napoleonic -era staff officers Clausewitz and Jomini, USMC Colonel Thorpe, UK Army Major General Fuller, and UK Marine Major General Thompson. All other sources used, bar one (US Army Lieutenant General Pagonis), were the work of academics. Major papers and writings on logisticians and logisticians infrequently appear beyond internal journals, or as the product of coursework.

53 E. Luttwak in Lynn, *Feeding Mars*, p. 3.

54 Exercise Hamel is the annual certification exercise for the Army's combat brigade prior to its being declared 'ready' for possible operational deployment.

55 Jomini, *The Art of War*, p. 182.

56 Fuller, *The Generalship of Alexander the Great*, p. 52.

# HISTORY

## Sir Basil Liddell Hart's Influence on Australian Military Doctrine

Captain Sam Baumgarten

## ABSTRACT

The theories of Sir Basil Liddell Hart are a ready staple of Australian doctrine. Indeed they arguably represented the most significant influence on Australian military doctrine between the 1970s and the 1990s, the period in which the Australian Army developed its first independent and operational-level doctrine. This article will examine Liddell Hart's influence on the Army's doctrine development and the continuing relevance of his signature theories which espoused two specific military ideas. The first of these was limited war, an amalgam of defence in depth and limited liability, which proposed the employment of measured levels of military force to achieve strategic ends. The second comprised the indirect approach which significantly influenced early versions of the *Fundamentals of Land Force Operations*, the Army's first operational-level doctrine publication. The indirect approach was also one of the key influences on the development of manoeuvre theory, a dominant element in Army thinking throughout the 1990s. As the Army progresses through its current period of change, it would benefit significantly from revisiting Liddell Hart's theories as, for better or for worse, they exerted a profound influence during a period of fundamental change.

## Introduction

The theories of Basil Liddell Hart were highly influential in the development of Australian military doctrine between the 1970s and 1990s. His theories of limited war and the indirect approach were consistent with the prevailing strategic context and thus were directly applicable to Australian Army doctrine during this period. However influence is a difficult concept to trace. Furthermore, Liddell Hart's ideas have seldom been explicitly acknowledged as a source of Australian military doctrine and thus there is no primary evidence of their use in the development of this doctrine. Yet any study of Army doctrine and the writing of Liddell Hart reveals the close similarity of themes that dominate both.

This argument will be supported by a comparison of Australian doctrine with Liddell Hart's own key written works, particularly *The Revolution in War and Strategy*, and by the observations of academic and military thinkers.[1] The Australian Army began producing its own unique doctrine in the 1970s in the aftermath of the Vietnam War and this doctrine was immediately influenced by the strategic context of the Australian military experience. The Australian doctrinal design from the 1970s adopted elements of limited warfare which closely resembled Liddell Hart's theories of limited liability and defence in depth. The indirect approach was Liddell Hart's signature theory and it exerted a substantial influence over Army doctrine, shaping doctrine development during its nascent stages. The indirect approach returned to prominence in the 1990s playing a seminal role in the development of manoeuvre theory.

## Strategic context

Australian Army doctrine after the Vietnam War developed within the prevailing strategic context, which was focused on continental defence and dominated by tactical proficiency, the logical focus for a military without obvious threat. As Michael Evans writes, 'In the 1970s and 1980s there was a … loss of confidence among defence planners in the value and relevance of offshore operations.'[2] This was a departure from the previous position which had been based on alliances. Evans describes independent Australian strategic postures as the 'tyranny of dissonance' and remarks of the standard Australian approach: 'The Australian way of war is best described as being based on using strategy and statecraft through the agency of overseas warfare.'[3] The doctrinal hierarchy that shaped the focus on continental defence emanated from the Department of Defence.

It was expressed in a series of guidance documents, commencing in 1975 with *Strategic Basis*, and evolving into the Defence white papers of 1976 and 1987.[4] John Blaxland observes that, 'From then on, throughout the Cold War years the *Strategic Basis* papers would stress the need for being capable of responding effectively to low-level pressures or military attacks and of timely expansion to responses to a more substantial threat.'[5] The Army developed its own capabilities and contingencies, and it learnt to operate without the support to which it had grown accustomed in Vietnam and in previous conflicts.[6] Evans describes this as a process which gathered momentum but was stifled by the 'lack of a consistent top-down approach to doctrine development'.[7] One aspect of this strategic independence was a focus on development at the tactical level.[8] This legacy — in the context of the Vietnam War — is summarised by Blaxland: 'the Army was also affected by an over-emphasis on tactical-level excellence and not the operational art or the strategic-level dynamics'.[9] Another consequence of self-reliance and tactical emphasis was that Australian military culture was susceptible to influence from specific military theories as the previous focus on alliance had partially stifled the development of a unique military doctrine. The ideas of Liddell Hart entered this opportune environment from the 1970s.

## Liddell Hart's background, theories and influences

The best sources of information on Liddell Hart's development are Alex Danchev's biography and the diverse range of articles that examine his theories.[10] Liddell Hart served on the Western Front in a New Army infantry battalion in 1915 and was wounded in early 1916. He was subsequently deemed unfit for further active service and was employed as adjutant of a training battalion for the remainder of the First World War.[11] He remained in the Army until 1926, supervising the production of training pamphlets as a captain in the Army Educational Corps. This position provided him a certain degree of exposure to military developments and to some important military figures. A seminal moment was his presentation of his 'The Man in the Dark' lecture to the Royal United Services Institute on 3 November 1920 which presaged his theory of the indirect approach.[12] His lecture and subsequent expounding of his theories attracted acceptance and prestige within the military in spite of his junior rank.[13] 'The Man in the Dark' theory consolidated his observations on infantry tactics, specifically the importance of avoiding points of effective resistance. But it was just the beginning.

Liddell Hart enjoyed an extremely varied career. He dabbled in journalism, contributing features as a tennis correspondent up to 1925 prior to taking a position with *The Daily Telegraph*.[14] In the aftermath of the Second World War he was also a noted correspondent on women's fashion.[15] He retained considerable influence as a military theorist after the Second World War and was described by one Israeli general as the 'captain who teaches generals'.[16] His writing was prolific and enduring, a reflection of his participation in many of the key events of the twentieth century, from his enlistment in Kitchener's New Army in 1914 to his critical commentary on American strategy in Vietnam as late as 1970.

## The development of limited war

Limited war is a collection of theories that proposes the limited use of force to achieve strategic ends. Liddell Hart's frustration with the strategic reliance on total war saw him become an advocate of limited war. His approach was based on the concept that military force could be used in a limited fashion to achieve national aims. He disliked war, but was far from a pacifist and was eager to develop theories of military utility. Historian Brian Bond writes that 'Liddell Hart was never a "defeatist" in that he never for a moment considered Britain's independence to be negotiable.'[17] Despite its role as a major theory of warfare, there is no defining document on his theory of limited war. His short book, *The Revolution in Warfare*, is perhaps the most succinct description of his rejection of total war. It was written in 1944 and released in 1946 with a short epilogue that described the importance of nuclear weapons and should be read not as a theoretic discussion of warfare, but as a narrative of European military history and the problems of a national, total strategic approach to warfare.[18]

Limited war comprised two related approaches: defence in depth and limited liability. Defence in depth emerged primarily in the context of the increasingly inevitable spectre of the Second World War in the late 1930s and was defined in his book *The Defence of Britain*.[19] Liddell Hart was a fervent advocate of the advantages of defence as a morally superior and more efficient strategic use of force. Bond observes that 'A major theme in Liddell Hart's publications in the mid and late 1930s is that the defence is markedly superior to the attack.'[20] He proposed a strong defensive belt as an economical means of deterring aggression. Mechanisation was also incorporated to enhance defensive capability. He wrote, 'This implies in the military sphere an active and mobile defence, in which the effect of direct resistance is extended by reposts both strategic and tactical.'[21] But this

was also marked by a strategic and operational imperative: 'Victims of aggression were unlikely to be beaten provided they refrained from "foolish indulgence in attacks".'[22]

Limited liability developed as a related concept. Liddell Hart's previous theories had led him to contemplate the use of force in a limited fashion. Azar Gat has conducted an exhaustive study of Liddell Hart's theories and writes that he incorporated the approach to war prevalent in the eighteenth century.[23] Liddell Hart advocated 'relatively cautious tactics, and more limited use of battle in deciding the issue of war'.[24] He opposed mass conscription and British military involvement on the mainland of Europe. His theories of limited war also influenced the context of military engagement and he advocated the selection of special missions suited to the British force structure.[25] This was complemented by his belief in the importance of treaties to international security.[26] Limited war has had a profound and ongoing influence on the way governments use force and the way in which military historians and commentators write on warfare. As recently as 2005, retired British general Sir Rupert Smith's *The Utility of Force* highlighted the contemporary importance of limited warfare.[27] However Liddell Hart intended limited warfare to be employed not in isolation, but in combination with the concept of defence in depth.

## Defence in depth in Australia

The 1987 Defence of Australia doctrine represents one example of the use of the concept of defence in depth in the Australian context. Defence of Australia used the concept of defence in depth to task the Australian military with the primary role of defending Australia through surveillance and control of the sea-air gap. The Army's role comprised surveillance of the defensive belt and maintenance of deployable land forces that could contain or destroy any incursion. As stipulated in the white paper, *The Defence of Australia*, 'Australia's defence strategy is based on the concept of defence in depth. This strategy and our force structure planning give priority to meeting credible levels of threat in Australia's area of direct military interest.'[28] This emphasis on a strong defensive belt was consistent with Liddell Hart's theories. A defensive posture was advocated as a superior strategic posture for Australia and a means to guarantee the sovereignty of its interests. Ultimately this was a responsive approach to counter any possible incursion. The placement of screening forces in the north of Australia also accorded with Liddell Hart's description of defence in depth.[29] Subsequent brigade-size reaction forces, such as the Operational Deployment Force, and conventional follow-on forces were

intended to repel any incursion.[30] This concept of fixing and destroying incursions again reflected the strategic considerations Liddell Hart had espoused in his concept of defence in depth, an approach ultimately designed to protect the nation from invasion. The use of defence in depth following the Vietnam War mirrored the policy context of the late 1930s, specifically its aversion to decisive confrontation and commitment. Defence in depth was employed because it appeared to guarantee national defence in an era of reduced defence force capacity.

## Australian use of limited liability

The Australian Defence Force (ADF) has applied Liddell Hart's concept of limited liability primarily in the context of limited military operations. This was largely a consequence of the doctrinal prevalence of low-level military threats and the potential benefits of limited overseas deployments. Australian strategic doctrine from the 1970s reflected the fact that the majority of Australia's threats and military requirements demanded a limited and scoped response rather than a conventional military deployment. This approach sought to ensure that the ADF would conduct measured and proportionate responses to threats, the ultimate aim to limit the consequences of aggression and conflict. An abiding theme of the 1976 (*Australian Defence*) and 1987 (*The Defence of Australia*) white papers was the threat of unconventional and limited operations against Australia.[31] Chapter 3 of *The Defence of Australia* described possible threats as most likely low-level or escalated low-level conflict. It consequently advised that 'The ADF should therefore be able to conduct such operations as maritime surveillance, interdiction and protection tasks.'[32] This was reassuring given the Australian government's previous successes with limited conflict during the Indonesian Confrontation. A number of historians have described the measured and proportionate response by Australia as effectively confining this conflict and preventing further escalation.[33]

The importance and complexity of limited threats remained a theme of defence policy in the white papers that followed: 'These threats could range from harassment of our maritime zone and offshore rigs or mining of ports at the lower level, through to substantial raids of short term duration on important northern targets or our offshore islands.'[34] Limited liability also shaped planning for limited offshore responses. The strictly limited nature of these responses was consistent with the prevailing reluctance to participate in significant overseas operations. Australia's limited operations in the period ranged from peacekeeping to the use of force outside a UN mandate in the second Gulf War. Evans asserts that Australian

diplomacy during that period was closely connected with its defence policy. He notes, however, that Australia has been able to use its limited military resources to achieve significant strategic aims: 'Australia may well have spent much of its history as a "dependent ally", but its dependency has always been clever, cynical and calculated.'[35] He lists the Gulf War, Somalia, East Timor, Afghanistan and Iraq as key recent examples.[36] Australia's defence policy from the 1970s incorporated limited offshore operations in spite of the importance of continental defence and its overall aversion to overseas operations. These strategic outcomes were consistent with Liddell Hart's concept of limited military involvement.

## The indirect approach

Liddell Hart's indirect approach exerted a crucial influence on Australian doctrine during the period of strategic change from 1972 until the 1990s. This is largely explained by the fact that it was consistent with the strategic context of the period and the prevailing Australian military culture. The indirect approach is a military theory that seeks to target the cohesion and will of a threat rather than its mass. This is a concept that has influenced Australian military doctrine through two distinct avenues. The first of these comprised its direct influence on the development of the Army's first substantive doctrine following the Vietnam War. This doctrine was a reflection of independence compared with previous iterations that had emphasised alliances.[37] This doctrine also gradually introduced the operational level of warfare. The second avenue of influence was manoeuvre theory. The key manoeuvre theorists were heavily influenced by Liddell Hart and this was directly reflected in the Australian adoption of this broad theory.

### Overview of Liddell Hart's indirect approach

The strategy of the indirect approach is Liddell Hart's most influential and memorable theory and was a logical extension of his published theories on technology, infiltration and the means to avoid decisive wars of annihilation. The indirect approach was also a reaction to the casualties on the Western Front that had affected him so deeply. As Reid observes: 'Liddell Hart could not escape the pressing reality that all of his theories were rationalizations of his emotional revulsion against the human cost of the great campaigns of the Western Front.'[38]

While Liddell Hart's *Strategy* is recognised as the most comprehensive summary of the indirect approach, it is less a manual than a description of favourable historical applications. As Danchev comments: 'This thinking grew out of his early work

on infantry training and tactics, informed by a grand tour of strategy in history — Baedeker's battles — and coloured by his more recent observation of live generals running wild in their natural habitat.'[39] This approach was frequently oppositional and sought to highlight successful examples that were consistent with Liddell Hart's theories. *Strategy* was primarily presented as a series of historical lessons and focussed on neglected military commanders, including Scipio Africanus,[40] Belisarius[41] and Sherman,[42] according them status as successful indirect commanders. As Danchev writes: 'Clinging to old idols was for Liddell Hart one of the common errors.'[43]

### Nature of the indirect approach

Under the indirect approach, military commanders target alternative enemy vulnerabilities such as cohesion, command and logistics. The indirect approach synthesised Liddell Hart's ideas that conflict could potentially be resolved without recourse to full military confrontation. He designed the indirect approach to counter existing military orthodoxy which targeted the mass of the enemy and firmly believed that any means that delivered realistic and practical national aims was an application of the indirect approach. Bond comments that, 'In theoretical terms he attempted to devise a counter to what he regarded as Clausewitz's evil legacy.'[44] A further component of this approach was the military advantage provided by technological innovation and Liddell Hart was closely associated with the development of independent mechanised forces. He believed in the operational and strategic advantages of a faster tempo of warfare.[45] However the strategy of the indirect approach has consistently been criticised as reliant on selective historiography and dismissed as vague and potentially controversial.[46] Danchev disagrees, writing that it is important not to search for too much structure in Liddell Hart's theory: 'The indirect approach is more an attitude of mind than an arrow on the map.'[47] This explains why it was not described in linear fashion, instead designed simply as a counter to existing military orthodoxy. Ultimately this was Liddell Hart's aim. He sought to challenge orthodox thinking and provide an approach that would allow commanders to avoid casualties.

### The indirect approach and the development of operational-level doctrine

The indirect approach played a direct role in the development of the Australian Army's operational-level doctrine. This was primarily because it was consistent with the prevailing themes of strategic independence and an aversion to conflict with a peer force. As the Defence of Australia doctrine developed from the mid-1970s to the late 1980s through *Strategic Basis* and the white papers, the indirect

approach influenced doctrine between the strategic and tactical level, shaping what eventually became the Army's first operational-level doctrine. Evans notes of the period that 'It was against the background of a DOA [Defence of Australia] strategic framework that the ADF began to move away from the strategy-tactics paradigm that had dominated its military history.'[48] *Fundamentals of Land Force Operations* was the Army's first capstone doctrine and described the overarching Army approach to warfare: 'Collectively the 1977 *Fundamentals of Land Force Operations* laid down the foundations for a land force doctrine stressing a new indirect strategy.'[49] In fact, several paragraphs were devoted to the indirect approach at the strategic and tactical level and the language of the publication stressed independence.[50]

The adoption of the indirect approach had two advantages. First, at the strategic level it was a military approach that sought to limit the role of armed conflict, consistent with Liddell Hart's anti-war but non-pacifist stance. This served to reconcile military operations with the strategic direction of a period marked by a reduced appetite for conflict. *Fundamentals of Land Force Operations* reflected this theme in statements such as: 'indirect strategy occurs when the result is achieved primarily by non-military means and the use of military force plays a secondary role.'[51] As a consequence, the Army became a participant in a strategy that placed a diminished reliance on military actions. Second, the indirect approach was regarded as consistent with Australian military culture and experience. This was a period that encouraged innovative behaviour to offset perceived disadvantages in size and firepower against potential enemies with larger and better equipped forces. Evans comments that, 'Given the Army's low-force-to-space ratios, the 1977 pamphlet advanced the proposition that the development of an indirect strategy — derived from the writings of Basil Liddell Hart and Andre Beaufre — was particularly suited to the Australian situation.'[52] Indeed *Fundamentals of Land Force Operations* included a section titled 'The Characteristics of Australian Doctrine' which asserted that 'The Australian Army must be prepared to operate against superior forces … This does not mean avoiding combat, but rather the avoidance of strategies and tactics which rely for their effect on the direct application of massive forces.'[53] The implication was that an innovative means of meeting threats would be more effective than mere overmatch of mass and firepower. Evans adds that 'The Army had to be prepared to operate successfully on Australian soil against superior forces by avoiding attrition strategy and tactics.'[54]

### Further development of operational-level doctrine

For all its innovation, however, the indirect approach may well have delayed the Australian Army's development at the operational level of warfare because it focused on prevailing in battle without consideration of the campaign's conclusion. Prior to the 1990s, the Australian Army had limited capability at the operational level and the indirect approach did not present an immediate remedy. The 1977 edition of the *Fundamentals of Land Force Operations* did not specifically address the operational level of conflict; indeed this was not introduced until the 1985 edition.[55] Evans was one of a number of historians who noted that Liddell Hart had substituted the operational level of command for what earlier military theorists had termed 'grand tactics'.[56] Grand tactics largely comprised the connection of a series of tactical actions to achieve an end.[57] The indirect approach generally focuses on the execution of tactical actions, although it is less descriptive in terms of campaigning and connecting these actions. This was consistent with the tactical bias prevalent during the period. The Army demonstrated a limited capacity to conduct its own independent operations during the 1980s and was confined to connecting tactical actions, a fact demonstrated during the major exercises of the period.[58] There was also very limited joint interoperability.[59] Blaxland denies that the Army was 'an adaptive learning organisation, responsive to the emerging strategic and operational trends'.[60] Indeed the limitations of the Australian Army's operational capabilities were clearly revealed in this period by the difficulties faced in Operation Morris Dance which saw forces assembled close to Fiji in 1987. As Blaxland notes, this short deployment 'provided a sobering demonstration of the limitations of Australian military power in the late 1980s.'[61] The Australian Army's involvement at the operational level required robust command at the joint level, while the indirect approach was concerned primarily with the use of combat force to decide conflict. The proper development of the operational level was to occur much later.

### The indirect approach and the development of manoeuvre theory

The indirect approach played a pivotal role in the adoption of manoeuvre theory by the Australian Army. Manoeuvre theory did not follow a clear path of development because of the decentralised nature of its ideas. Instead it was a process of steadily increasing influence of which Danchev notes: 'Liddell Hart's significance in this sphere is greater than we know. He is part of the mental furniture of manoeuvre, part of the climate of ideas.'[62] Manoeuvre theory was also influenced by Liddell Hart's particular brand of advocacy, specifically the use of published work to change the military institution from the outside. From the 1980s, however, manoeuvre theory exerted a rapid and significant effect on NATO militaries.[63]

In the Australian Army it gained traction from the early 1990s, particularly as a result of the speed and decisiveness with which the 1991 Gulf War was concluded. As Blaxland writes, 'In the years after the Gulf War, discussions took place within the Army concerning "manoeuvre theory" and the place of "protected mobility".'[64]

**The indirect approach and the authors of manoeuvre theory**

The early development of manoeuvre theory resembled the initial development of the indirect approach in the 1920s and 1930s. The key theorists published books and voiced their opinions in professional journals with the aim of changing the military institution's way of thinking. In this they resembled Liddell Hart in his advocacy during the interwar years. Sir John Kiszely wrote of manoeuvre theory's magnetism: 'Indeed, there are still some who attribute supernatural powers to it as a military panacea, comparable to Liddell Hart's advocacy of his indirect approach.'[65] Some of the key early theorists of manoeuvre theory made direct reference to Liddell Hart and different elements of the indirect approach, including Colonel John Boyd, William Lind and Lieutenant Colonel Robert Leonhard, all of whom have contributed to the development of Australian military theory. Frans Osinga studied the roots of Boyd's military theories and identified Liddell Hart as a significant influence: 'What Liddell Hart terms the indirect approach, Boyd refers to as Maneuver Conflict, one of three kinds of human conflict.'[66] Lind consolidated this process by providing early manoeuvre theorists with advocacy in Washington, writing the first book dedicated to manoeuvre theory in 1985.[67] *Manoeuvre Theory Handbook* was in part a critique of the US Army doctrine publication FM100-5 and in part a manual for the conduct of manoeuvre theory.[68] The actual reference to Liddell Hart amounts to a short description of his 'The Man in the Dark' theory, simply noting that this was a brief publication.[69] Leonhard's book *The Art of Manoeuvre* contains a chapter titled 'The Evolution of Maneuver Theory' which provides a valuable summary of the contemporary influences and contributions to the approach. He noted in a section on Liddell Hart that 'the indirect approach involves subtlety, deception and the avoidance of enemy strength'.[70] Each of these books sought to distinguish manoeuvre theory from the prevailing operational art. The contrary position is one of the distinguishing features of the indirect approach and reflects the fact that manoeuvre theory itself is a very difficult concept to define. As Osinga commented, 'Boyd also resembles Liddell Hart in his didactic method.'[71] Their approach mirrored Liddell Hart's form of outsider advocacy which aimed to change military thinking.[72] The indirect approach continues to represent one of the most enduring influences on manoeuvre theory.

## The nature of Liddell Hart's influence on Australian manoeuvre theory

The influence of the indirect approach on Australian manoeuvre theory is evident in the themes of Australian doctrine and the bias for specific historical lessons. The Australian Army readily adopted manoeuvre theory from the late 1980s in a key document entitled *Directive Control*.[73] The introduction to *Directive Control* announced that: 'The main thrust of conventional tactical doctrine has shifted from battles of attrition … to an emphasis on manoeuvre.'[74] Evans writes that Directive Control had a profound influence on the Army's command arrangements with key texts on manoeuvre theory emphasising the distinction between attrition and manoeuvre. Liddell Hart's theories, particularly the indirect approach, had a marked influence on doctrine and on military thought in the wider professional military forum in Australia. First, the selective use of military history to support Australian military doctrine, a technique beloved of Liddell Hart himself, was increasingly apparent. Australian military doctrine traditionally dismisses campaigns it identifies as attritional.[75] Military campaigns such as the Somme and even some of the operations conducted in Vietnam are described as attritional and their failure is attributed at least in part to their reliance on firepower and mass. This is consistent with Liddell Hart's writing as he was himself critical of these types of campaigns.[76] Manoeuvre campaigns are accordingly distinguished by their decisiveness and creativity with examples that focus on Lae and the wider Pacific campaign.[77] A key distinction of these battles is the attempt to avoid frontal assaults on enemy strongpoints.

There are also references to Liddell Hart's work in both journals and doctrine publications, including an article published in the *ADF Journal* in 1996 which explores the indirect approach and the connection between Liddell Hart and Sun Tzu.[78] Australian Army doctrine often uses quotes from the work of Liddell Hart.[79] Such references acknowledge the influence of his theories on Australian military thought, particularly during the development of manoeuvre theory. Likewise, the Army's relationship with mechanised warfare is an example of the specific influence of the indirect approach on its doctrine. Manoeuvre theory is inextricably linked with mechanised warfare and many of its key proponents such as Leonhard were themselves mechanised officers. However, neither manoeuvre theory nor the indirect approach represents a blueprint for mechanised warfare. Instead, mechanisation is used to enhance tempo and decision superiority. This is consistent with Liddell Hart's views on mechanisation which were focused more

on speed of decision-making than firepower and protection. The Army's doctrinal focus on decision-making may have been a result of the reluctance of ADF planners to invest in totally mechanised forces. This point was reflected in the 1997 document *Restructuring the Australian Army* which sought to justify the grouping of armour, fire support and aviation into task-organised units by noting: 'The current Army approach to the battlefield reflects an anticipated scarcity of some combat and combat support units.'[80] The British Army experience mirrored that of Australia and the authors of *British Military Doctrine* introduced manoeuvre theory at the behest of Field Marshal Sir Nigel Bagnall in 1989. *British Military Doctrine* clearly linked the indirect approach to the manoeuvrist approach.[81]

## Conclusion

The theories of Basil Liddell Hart consistently influenced the development of key areas of ADF and Army doctrine from the 1970s to 1990s. While this influence is not documented as such, the footprint of those theories is readily apparent in the presence of consistent themes in Australian doctrine that reflect his approach. The strategic circumstances of this period demanded unique ideas and Liddell Hart's theories were appropriate to these circumstances and were characterised by innovation. The requirement to mitigate ambiguous threats with limited resources dictated a limited response and Liddell Hart's defence in depth and limited liability provided an ideal solution. Defence in depth represented a means to defend Australia against possible threats while acknowledging the prevalent aversion to militarism. Limited liability sought to employ military force for strategic ends without escalation. Together these approaches formed the twin arms of limited war and exerted a substantial influence on the Defence of Australia doctrine.

Similarly, the indirect approach, which represented a key influence on the Army's first operational-level doctrine, has consistently allowed Australian planners to develop operational and strategic doctrine that is not reliant on mass and firepower. It specifically influenced the Army's first capstone doctrine, *Fundamentals of Land Force Operations*, continuing that influence with the development of manoeuvre theory. Indeed, the Australian use of manoeuvre theory was defined by Liddell Hart's specific perspective on conflict. Liddell Hart's influence on the development of such a broad range of military doctrine marks his theories as fundamental to doctrine development during the period from the 1970s to the 1990s. These theories were influential because they suited the circumstances of the period and reflected the timelessness of Liddell Hart's particular brand of military thought.

That he should exert such a profound influence on military conceptual and doctrinal thought decades after his death in 1970 is a tribute to the innovative and enduring nature of his theories. The Australian Army of today would do well to revisit Liddell Hart's theories and ponder their relevance in this time of change.

## THE AUTHOR

Captain Sam Baumgarten graduated from the Australian Defence Force Academy with a Bachelor of Arts before completing his final training at the Royal Military College, Duntroon, in 2006. He was allocated to the Royal Regiment of Australian Artillery and served in 16 AD Regiment, 1 RTB and 16 AL Regiment. He has deployed on Operation Catalyst and Operation Slipper. Captain Baumgarten moved to the Army Reserve in 2013, recently corps transferring to the Royal Australian Engineers and is currently posted to 8 ER. He is studying graduate entry law at the University of Newcastle and works as a law clerk.

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# BOOK REVIEW

## *Canister! On! FIRE! Australian Tank Operations in Vietnam*

Bruce Cameron, Big Sky Publishing, 2012,
ISBN 9781921941993, 968pp (two volumes), $64.99

Reviewed by Lieutenant Colonel Scott Winter

In November 2012, the 1st Armoured Regiment hosted the official launch of *Canister! On! Fire! Australian Tank Operations in Vietnam*. A contingent of the regiment's veterans, led by author Bruce Cameron, MC, joined the men and women of the regiment for the occasion. After a stirring presentation by former Chief of the General Staff Lieutenant General Laurie O'Donnell, AC, veterans read excerpts from the book. This was a poignant and moving occasion. It was also a reminder that, some 40 years after the last tanks were withdrawn from Vietnam, service in this unique arm of the Australian Army remains strikingly similar, with enduring challenges.

This two-volume history of Australian tank operations in Vietnam provides a complete narrative of the commitment of tanks to the conflict, from the background to the decision to deploy tanks to the theatre through every action fought. The last of these actions — and the final deployment of tanks in a combat role — saw

the author lead his troop against a determined enemy. Exhaustive research by Bruce Cameron adds considerable detail to the account, whether in the technical strengths and vulnerabilities of the vehicles or the daily experience of living and fighting from the tanks under the most demanding of conditions. This is ultimately the story of the tank crews themselves and represents the first time the unique experiences of these men have been accurately and effectively recorded. For this reason alone, this history is a worthy addition to the pantheon of literature on the Vietnam War.

From a contemporary perspective, however, there is an immediate and enduring resonance to this history. The background to the employment of armour in the conflict, the decision to deploy tanks, and their subsequent integration into the very core of the way in which the Australian Army fought the ground war in Vietnam, provide clear and important reminders for the soldiers of today.

Analysis of the decision to deploy tanks to Vietnam reinforces the enduring place of the tank in the way the Australian Army fights. As Cameron comments, in the aftermath of 6 RAR's experiences during Operation Bribie, 'the lack of direct firepower to enable the Australians to successfully assault even a hastily prepared defensive position was obvious.' However the decision to deploy tanks was politically charged and the subject of heated debate. Ultimately, the reality of the changed nature of warfare, the conviction of the Australian Task Force commander and his determination to ensure that soldiers had every advantage in the close fight led to the decision in 1967 to send C Squadron to Vietnam.

The 'shock action' effect of the tank as a 'game changer' on its introduction to the theatre was clearly highlighted by the initial deployment of tanks during the reinforcement of Firebases Coral and Balmoral in May 1968. The aggressive use of canister rounds (that give the book its title) in the defence, and the ability to counter-attack with 'more confidence' as the Task Force Commander reflected after the battle, meant that, from this point on, tanks would be integrated into the combined arms fight in Vietnam.

Another all-too-familiar battlefield challenge was the enemy's response to the arrival of tanks in the province — the escalation of mine warfare and complex ambushing. The need to adapt to the mine (IED) and rocket-propelled grenade threat through tactical and technical ingenuity is a recurring theme of this story, and the nature of the threat to the tank crews would be very familiar to those who have deployed in armoured vehicles in the Middle Eastern theatre of operations in recent years. There is thus a great deal in this history to commend it to today's scholars; indeed,

the experiences and challenges of deploying tanks in Vietnam should be noted by all those engaged in military preparedness planning, and the difficulties of the sustainment and maintenance of armour on operations provides much useful material for logistic specialists.

Above all, for contemporary readers, the book relates the timeless imperative of close cooperation of all elements of the combined arms team. The battle of Binh Ba, for example, remains testament to the need for close coordination of combined arms. In Cameron's retelling of the tale, what emerges are the complementary roles of tanks, APCs, infantry and aviation, and indeed their inherent vulnerability if isolated. The essential support of artillery and engineers is also highlighted. In reading this account of the battle however, it is the 'cool leadership and gallantry' of commanders, the 'adherence to crew drills' of the Armoured Corps crewmen, and the tireless work of the 'bluebells' (the RAEME mechanics) that are identified as critical to achieving victory under conditions of sustained close combat.

As a young officer in this regiment I was keenly aware of the legacy of those who served before us. The regiment's battle honours, emblazoned on the Army's only Regimental Standard, presented a daily reminder of the sacrifice of my predecessors. Bruce Cameron's books, like the Standard, represent an enduring monument to the struggles of the tank crews and maintainers who fought in the jungles of Vietnam. What the books also offer, however, is the fine detail, the human experiences and the enduring lessons behind the battle honours. As the Army restructures to include tanks, APCs and cavalry in each brigade, these stories, and particularly the detail and the human experience of how to train, fight, and adapt remain inviolable. For many years the regiment sustained the mantra 'Tanks Save Lives!' to illustrate the value of the tank to the infantry in the close fight — this history explains in vivid detail why this mantra is true.

With typical humility, Bruce Cameron's account of the action for which he was awarded the Military Cross is understated and he concentrates on the facts and the brave actions of others. *Canister! On! Fire!* reflects this selfless approach throughout, as it is the deeds of the tank and RAEME crews together with their attached engineer mini-teams that stand as proof of the enduring lessons of combined arms in battle.

# BOOK REVIEW

## *A Soldier's Soldier: A Biography of Lieutenant General Sir Thomas Daly*

Jeffrey Grey, Cambridge University Press, 2013,
ISBN 9781107031272, 264pp, $64.99

Reviewed by Lieutenant Adam Chirgwin

As author Jeffrey Grey observes in his opening to *A Soldier's Soldier: A Biography of Lieutenant-General Sir Thomas Daly*, the Australian Army does not have a tradition of 'great captains'. As a result, there is often a profound lack of knowledge and awareness of Australia's leading military figures, both in society as a whole and within the Army itself. Grey seeks to redress this shortcoming in his examination of the life and career of the Vietnam-era Chief of the General Staff (CGS), Lieutenant General Sir Thomas Daly.

*A Soldier's Soldier* is the first attempt to publish a biography of Daly. It covers his career from his arrival at the Royal Military College, Duntroon, in 1930 to his retirement as CGS in 1971 as Australia was preparing to withdraw from Vietnam. While his career is covered in its entirety, the major focus of the book is on Daly's career following attainment of senior rank after his return to Australia from commanding the 28th Commonwealth Brigade in Korea. This was a transitional

period for the Australian Army, characterised by expansion during the Vietnam War and the loss of public and political support resulting from that unpopular conflict. Particular attention is paid to Daly's interaction with senior Navy and Air Force officers, politicians and senior foreign military officers. The book also examines structural change within the Army in which Daly played a major role, including developments in Army aviation and the pre-independence Pacific Islands Regiment.

The career of an officer such as Daly contains important lessons for professional development including how to effectively train and manage troops, regardless of rank. Daly possessed a signature command and leadership style that he applied throughout his career to great effect. His emphasis on soldier and family welfare was well received by both his peers and his subordinates, as the extensive range of interviews and personal accounts throughout the book attests. Examination of Daly's command at all levels also provides valuable insight into effective unit training and management in times of affluence and austerity, and in both peace and war. Daly's struggle as CGS to lead an army that was undergoing significant structural change following an extensive operational deployment is also particularly topical for the current Australian Army in the aftermath of the withdrawal from Afghanistan and the changes heralded by the implementation of Plan Beersheba. Daly offers a strong example of how these challenges can be managed.

*A Soldier's Soldier* is a comprehensive and well-balanced portrayal of a man who played a pivotal role in leading the Australian Army through a period of upheaval and uncertainty. The book analyses the broad range of pressures that Daly faced during his career; from managing subordinates and their families, to interservice, international and whole of government relations. While these pressures are common across every period in the history of the Australian Army, Daly's actions warrant particular examination. His ability to maintain unity in the face of mounting public and government mistrust, and his efforts to promote trust and communication between the higher echelons of the Army and government, ensure that *A Soldier's Soldier* is particularly pertinent to the contemporary Army. The author's careful analysis of Daly's command style at all levels also provides much that will benefit the current generation of Australian Army officers. *A Soldier's Soldier* contains valuable lessons for current and future Australian soldiers as the Army once again enters a period of structural change following a lengthy operational commitment. The common elements lie not simply in the challenges faced, but more importantly in the way these are met.

# BOOK REVIEW

## *Afghan Sun: Defence, Diplomacy, Development and the Taliban*

Stuart Yeaman, Boolarong Press, 2013,
ISBN 9781922109910, 360pp, $34.95

Reviewed by Colonel David Connery

Most books reviewed in this journal are written by detached observers and academics. *Afghan Sun* is different. It is the work of former Australian Army officer Colonel Stuart Yeaman, AM, and is a personal account of the unit he commanded in Afghanistan. This book will primarily interest readers with a connection to the unit or those with a deep appreciation of the Afghan conflict. Future commanders will also find sound advice on counterinsurgency and engineering operations presented through insights into Colonel Yeaman's thinking and infrequently offered personal views.

*Afghan Sun* is a detailed narrative of Reconstruction Task Force 4 (RTF4) and its tour of Afghanistan from April to October 2008. The book covers the formation and training of the task force and its initial deployments. The story then moves in chronological sequence through the major construction operations which focus on the impressive deployments to build a new patrol base in the Baluchi valley and the

long-range bridge repair effort in south-eastern Afghanistan. These stories illustrate the consideration, preparation and teamwork necessary for successful operations. They also describe how RTF4 commanders analysed risk, their mission and their enemy. The book is particularly strong in these areas, and the stories of each operation are conveyed clearly and crisply.

Providing context for the reader can be a tough task, particularly where the book only covers a small part of a large war. Yeaman provides this background by taking the reader through the 'why' of the conflict and the 'who' of some important actors in well-considered and logical ways. He mixes this element of the narrative with anecdotes describing former President Karzai's links to the province, explanations of Afghan society, and details of military equipment and tactics. The latter section, told from an Army engineer's viewpoint, is fascinating, particularly as this topic is rarely broached in the broader literature on warfare. As background, these sections perform adequately, although they are unlikely to satisfy those who seek a deeper understanding of Afghanistan and this conflict.

The narrative produces some sharp observations on the Afghan war and Australia's role. Yeaman laments the lack of media coverage of the war and his unit, which he felt could have helped convince Australians to 'own' the war. While that outcome was always unlikely, it does highlight the general estrangement of the Australian people from the tough and dangerous task performed by their army. His observations on post-traumatic stress syndrome are poignant and his views on team-building and discipline are worthy of consideration by those who may undertake a similar job in the future. He provides some insight into the local level diplomacy and development in Uruzgan during 2008, but makes no real attempt to place either in their broader context or to evaluate their relative significance. That such advice and views are rare is disappointing, but generally consistent with the author's narrative style.

Unit histories do not always make interesting reading for general audiences. They must balance the requirement to explain unit actions with the need to recognise those who were involved. *Afghan Sun* achieves that balance and is a worthwhile addition to the growing literature on this protracted and ongoing war.

# BOOK REVIEW

## *Don't Mention the War: The Australian Defence Force, the Media and the Afghan Conflict*

Kevin Foster, Monash University Publishing, 2013,
ISBN 9781922235183, 168pp, $24.95

Reviewed by Tom Hill

Kevin Foster's *Don't Mention the War* seeks to explain the lack of objective and erudite reporting on the Afghanistan conflict by the Australian media, arguing that the coverage was characterised by an absence of insight and investigation. Instead, the media were forced to perpetuate the ADF's strategic and operational narrative to the detriment of public discourse and debate. In support of his argument, the book analyses the ADF, government and media's attitudes to reporting in Afghanistan. His analysis reveals a complex interplay of factors which conspired, directly and indirectly, against transparent and unbiased reporting of the war. As a result the book provides a comprehensive understanding of the array of factors behind the low standard of reporting. However, the reader is left to deliberate the effect of the collective failure to provoke insightful and objective debate in Australian public discourse on the quality and legitimacy of the ADF's participation in the Afghanistan war.

Foster's book is situated within the well-established debate on the influence of the '4th Estate' on political decision-making. His work provides fresh insights into its relationship with the ADF and how this distrustful and at times antagonistic relationship restricted objective reporting on the Afghan conflict. He begins his analysis by questioning the legitimacy of ADF attitudes to reporting, citing the long shadow cast by negative attitudes to the media during the Vietnam War. He contends that this unjustified negativity reflected the attitude of American forces to the media at the time. This was reinforced by the frequent substitution of American content for Australian by the better resourced American broadcasters. Suspicion has continued to dominate the ADF's approach to the media despite the passing of time.

Foster asserts that this perception continued to underpin the ADF's media engagement with journalists in Afghanistan. Its effect was most pronounced in the media embedding program. He argues that the program lacked structure and an established agreement between the ADF and media organisations. Consequently, it was susceptible to the personalities and attitudes of Defence personnel which limited journalists' exposure to the ADF's work. He contrasts this with the embedding program conducted by Canadian and Dutch forces. Apart from the political and cultural issues which drove their engagement with the media, Foster emphasises that their success was built on a willingness to formalise mutually beneficial relationships which, he asserts, the ADF lacked.

Foster also focuses on the shortcomings of both the media and the public. The Australian media's unwillingness to invest in overseas bureaus — due largely to falling revenues linked to the modern revolution in media — tended to restrict original reporting. Furthermore, the public lack of interest or propensity to question the reasons and strategy behind Australia's involvement in Afghanistan limited the conflict's commercial media appeal. This stable public support for the war, Foster argues, was nurtured by the ADF and the Defence Minister's office through a constant, ADF-generated strategic narrative.

Foster's analysis weaves through a complex interaction of historical, cultural and political arguments to support his central thesis. However his detailed handling of the multifaceted and broad-ranging issues which made objective and insightful reporting in Afghanistan challenging makes close reading necessary. The reader can get lost in his often long and convoluted sentences. This makes the book slightly unfriendly to a non-academic audience and is exacerbated by the lack of a dominant narrative at some points. Given the complexity of the issue, a stronger central narrative would have helped bind many of the interrelated issues.

However the book's central argument is consistently well supported and convincing. Foster's use of evidence based on face-to-face interviews and academic research reinforces an already widely held assumption that reporting on Afghanistan lacked objective insight. Foster's book neatly explains why objective reporting on the war was constrained. He ties together shortcomings within the ADF, media and government and signals a collective failure to objectively inform the public on Australia's longest war. *Don't Mention the War* is insightful reading for those who seek to improve the quality of media coverage of any future operation conducted by the ADF.

# BOOK REVIEW

## *All the King's Men: The British Redcoat in the Era of Sword and Musket*

Saul David, Penguin, 2013,
ISBN 9780141027937, 592pp

Reviewed by Major Tim Inglis

The centenary of the Gallipoli campaign is not the only military anniversary in 2015. It will also be the bicentenary of the battle of Waterloo, which ended the revolutionary era and drew the Napoleonic Wars to a close. It is therefore hardly surprising that military historians are busy revisiting the events that led up to the battle. One of the best accounts in circulation is in the closing chapters of Saul David's *All the King's Men*, in which he reviews the entire Waterloo campaign including the critical forerunner actions at Quatre Bras and Ligny. This is a well-researched account that steps outside traditional Wellington hagiography and avoids facile explanations of how Napoleon snatched defeat from the jaws of victory. There is sufficient breadth in David's account to see the ebb and flow in the fortunes of war; yet there is detail enough to catch glimpses of the early stirrings of manoeuvre warfare in opposing commanders' use of gaps and surfaces, occasional application of mission command and serendipitous assembly of

*de facto* combined arms teams. From a command and control perspective, there are hints at the consequence of an early form of the staff system among Blucher's Prussians and specifically in its impact on combat effectiveness.

*All the King's Men* is the most recent work from the author who brought us the poignant *Churchill's Sacrifice of the 51st Highland Division*, *Victoria's Wars*, *The Indian Mutiny* and *Zulu*. David's strength as a specialist in Britain's colonial wars explains the authority he brings to this broad sweep from Marlborough to Wellington, a period in which Britain suffered only one major military defeat, in North America. The scope of this book includes the evolution of tactics through the developments in military technology, training methods, command and control. Thus we see how Marlborough exploited sprung supply wagons to give his army a logistic edge, how the rolling musket volley came into being, and when the foundations of defence in depth were laid.

David is at his most incisive when he examines the shibboleths of popular wisdom, such as the claim that the British learned nothing from the revolutionary war with America. His assertion that Moore applied the lessons learned to raise a brigade-level unit for rapid deployment and flexible operations is pursued to its conclusion with Moore's fighting retreat to Corunna. Moore died of his wounds in the field, without the glory that surrounded Wolfe's assault on the Heights of Abraham. But he snatched a significant part of the British army from the enemy's grasp, diverted Napoleon's attention to northern Spain and established a role for light troops. David's treatment of Wellington's rise to pre-eminence has a compelling objectivity. He properly recognises Wellington's battlefield courage as common currency among his subordinate commanders, but notes other qualities that enabled Wellington to function more effectively, such as his ability to learn quickly from his own errors, his intuitive sense of territorial opportunity, and his almost herculean sense of public duty.

There is an irony in Saul David's headline title *All the King's Men*, since the record is more generous to the generals and their campaigns than to their men who fought so doggedly in this century and a half of British military dominance. Perhaps this title hints at the deep-running loyalties that united Britain's generals during this period of almost uninterrupted success. For those who like to live dangerously and go straight to dessert, the last two chapters are as good a revision as you could find for commemoration events in June 2015. But those who do make the time to read this book from cover to cover will be rewarded with many fine insights into the rise of the redcoat.

# BOOK REVIEW

## *Fromelles the Final Chapters: How the Buried Diggers were Identified and Their Lives Reclaimed*

Tim Lycett and Sandra Playle, Penguin Australia, 2013,
ISBN 9780670075362, 288pp, $29.99

Reviewed by Brian Manns

I began reading this book with great interest, keen to know how Tim Lycett and Sandra Playle planned to tell the story of 'how the buried diggers' recovered from several mass graves near Fromelles in France were identified. The process of exhumation and identification was so complex that I doubted they were equipped to tell the complete story, particularly as their involvement in the Fromelles Project had remained on the periphery.

From 2008 to 2010 the joint Australian and British Fromelles Project investigated, recovered, recorded and reburied the human remains of 250 Australian and British soldiers from several mass graves near the tiny French town of Fromelles. The remains were those of soldiers killed during the Battle of Fromelles (19–20 July 1916) and buried by the German Army near a small wood (Pheasant Wood) on the

outskirts of Fromelles. The bodies were reburied in the newest Commonwealth War Graves Commission cemetery, the Fromelles (Pheasant Wood) Military Cemetery, in 2010. The battle represents the largest single loss of Australian lives in any war with over 5000 men killed.

In my position as Manager, Unrecovered War Casualties – Army, I have been responsible for the Australian contribution to the joint project since August 2010, with most of the work focused on the ongoing identification of the Australian soldiers. The joint nature of the project will conclude in July 2014 with the Australian Army then 'going it alone' until every opportunity to identify the remaining Australians is exhausted. I was also a member of the expert panel convened in 2005 to consider the evidence presented by Lambis Englezos and his team. So, I was eager to read how Lycett and Playle would tell the story of the identification process. Not surprisingly, they have not explained the entire identification process but have provided an interesting insight into how genealogy contributed, in no small way, to the overall success of identification. To date, 124 Australian soldiers have been identified by name.

This book is not intended to provide the definitive account of the Battle of Fromelles, although it does include an outline of the battle. Nor does it attempt, as its sub-title might suggest, to explain the various aspects of the identification process employed by the project team, although it does explain how the project unfolded. What it does is to provide the reader an insight into the passion of both writers for the stories of Australians and the Great War. It is clear throughout the book that both authors have spent years researching the subject and that they have employed their interests in military history and genealogy to full effect to provide insightful accounts of the lives (and deaths) of a number of Australian soldiers who served in that dreadful war.

The book assists the reader to understand the important role that historical research and genealogy played in locating the relatives of Australians who were listed as — and remain — missing in the Battle of Fromelles. Locating relatives and identifying those who are most suitable for DNA matching with a recovered soldier is the first step in establishing a soldier's identification. When a DNA match is supported by post mortem and ante mortem, artefact and historical evidence an individual identification may be established.

Tim Lycett and Sandra Playle provide their readers a fascinating insight into the world of genealogy heightened by their passion for their work. The book also assists the reader to become acquainted with many of the brave Australians who answered the call and who gave their lives during the Great War.

# BOOK REVIEW

## *Australia 1943: The Liberation of New Guinea*

Peter Dean (ed), Penguin Australia, 2013,
ISBN 9781107037991, 337pp, $59.95

Reviewed by Matt Miller

*Australia 1943: The Liberation of New Guinea* is an excellent snapshot of both familiar and unexplored aspects of the war in New Guinea. New Guinea was a complicated battlefield with a vast geography and unfamiliar names which will challenge the uninitiated. The book endeavours to explore the battle for New Guinea from the strategic heights of political challenges in Australia to the combat logistics services in the jungle. The capture of a single year of war and the broad cross-section of topics has, to an extent, streamlined what would have previously required the reading of numerous voluminous texts to gain familiarity with the topics.

The first challenge for the uninitiated is to understand the vast scope of New Guinea's geography. For the American reader, the sheer scale of unfamiliar names of landings and battle sites will present a significant challenge. These geographic challenges will be exacerbated by the general ignorance of the New Guinea campaign in favour of places such as Tarawa, Iwo Jima and Okinawa. Throughout *Australia 1943*, the authors of individual chapters provide an excellent framework, with maps and geographic context for a campaign that stretched across one of the world's largest islands.

*Australia 1943* captures an important year of transitions in the South West Pacific Area (SWPA). First, the Japanese transitioned into a retrograde and sometimes 'die in place' defence across the theatre. The second major transition was that of the United States which, after some initial stumbles in the SWPA, became the dominant combat power in the Pacific, first offsetting the Royal Australian Air Force and the Royal Australian Navy and finally the Australian Army.

This volume addresses the evolution of strategy in 1943 from three angles — the United States, Australia and Japan — providing a healthy look at the strategy under which the battles of New Guinea would unfold. Readers familiar with General MacArthur's complicated and sometimes questionable command style will find the Australian perspective on theatre command politics throughout the book highly beneficial to understanding the complex relationships between the countries. Equally important is the inclusion of a chapter on Japan's strategy in the SWPA, offering a deeper view of the reasoning behind Japan's actions as opposed to publications that more commonly use Japan's role and actions to highlight Allied stories of Pacific victory. As noted, 1943 was a significant year for Japanese military strategy with the shift to retrograde operations in unforgiving, disease-infested terrain where the possibility of withdrawal or relief seemed ever less likely.

The often lesser acknowledged fields of military endeavours, such as logistics, are provided their own chapters in *Australia 1943*. This helps the reader to grasp the monumental challenge of Australian and American support for ground combat troops in the mud and mountains of New Guinea. It also highlights the inability of the Japanese to support their overextended defensive ring in the South Pacific. Although it is uncommon for support functions such as logistics to be given such prominence in this type of book, this information is invaluable to understanding the scope of operations in New Guinea.

*Australia 1943* offers fair praise for the Australian infantry who, in this time and space, had transitioned from the deserts of North Africa and the Middle East to become a highly competent jungle force. The partnership with the United States turned a tactically savvy light infantry into a combined arms machine in New Guinea. As was keenly noted in the book, 1943 saw the Australian infantry's increased command of both artillery and air support against the Japanese fortifications in the Markham and Ramu valleys.

The contributors to this volume present the war in New Guinea in a fresh light. At first glance, the chapters appear to draw extensively on previously published sources. Normally, this could be considered a great disadvantage as many of the

books on New Guinea indulge in circular sourcing to the extent that the reader receives the impression that nothing new has been written on the subject since the 1970s. Fortunately, none of the chapters in this book engages in the reissue of famous quotes, redundant statistics, or verbatim accounts of battles from the official histories.

A beneficial addition would have been a chapter on the various Australian capabilities and echelons of intelligence operating in New Guinea during 1943. This unexplored area of the only theatre of the Second World War devoid of the Office of Strategic Services could have proven a valuable addition to the study of the Australian military and the liberation of New Guinea.

While this book will certainly be of great interest to the Australian reader, I believe it will be of greater importance to the American reader who will be less familiar with New Guinea. In addition, the historical insights into the conduct of jungle and amphibious warfare in a coalition environment offer more value to future military leaders than the study of assaults against isolated coral atolls. I would recommend that *Australia 1943: The Liberation of New Guinea* and its companion *Australia 1942: In the Shadow of War* be added to any military reading list related to the conduct of military affairs in the Pacific.

# TITLES TO NOTE

## *Kidnap in Crete*

Rick Stroud, Bloomsbury, 2014
ISBN 9781408851753, 288pp, $32.99

In 1941 the German army invaded the strategically important Mediterranean island with the largest airborne force in history. The years of Nazi occupation that followed saw mass executions, widespread starvation and the brutal destruction of homes – but amid the horror, the Cretan resistance, the Andartes, with the support of a handful of British SOE agents, fought on heroically.

This is the story of the abduction of General Kreipe by Leigh Fermor, his second-in-command William Stanley Moss and their tight-knit group of partisans; of the midnight ambush of the general's car and the perilous drive through the garrison town of Heraklion and twenty-two heavily guarded roadblocks; of their epic, dangerous journey on foot and mule across rocky peaks, hiding from their German pursuers in mountain caves and ditches, towards the coast where a Royal Navy launch was waiting to spirit the general to Egypt. But success came at a price for the islanders left behind: German reprisals were swift, unsparing and devastating.

With unprecedented access to first-hand accounts of the Cretan guerrilla fighters themselves, as well as SOE files, Leigh Fermor's own account and other private papers and diaries, this astonishing true story of daring in the battle against Hitler is told in full for the first time.

## *Australian Soldiers in the Asia-Pacific in World War II*

Lachlan Grant, New South, 2014
ISBN 9781742231419, 276pp, $39.99

Half a million Australians encountered a new world when they entered Asia and the Pacific during World War II: different peoples, cultures, languages and religions chafing under the grip of colonial rule. Moving beyond the battlefield, this book tells the story of how mid-century experiences of troops in Asia-Pacific shaped how we feel about our nation's place in the region and the world. Spanning the vast region from New Guinea to Southeast Asia and India, Lachlan Grant uncovers affecting tales of friendship, grief, spiritual awakening, rebellion, incarceration, sex and souvenir hunting. Focusing on the day-to-day interactions between soldiers on the ground and the people and cultures they encountered, this book paints a picture not only of individual lives transformed, but of dramatically shifting national perceptions, as the gaze of Australia turned from Britain to Asia.

## *Fallujah Redux: The Anbar Awakening and the Struggle with Al-Qaeda*

Daniel R. Green and William F. Mullen III, Naval Institute Press, 2014
ISBN 9781612511429, 192pp, US$37.95

Fallujah Redux is the first book about the Fallujah Awakening written by Operation Iraqi Freedom military veterans who served there, providing a comprehensive account of the turning of Fallujah away from the al-Qaeda insurgency in 2007. The city of Fallujah will long be associated with some of the worst violence and brutality of the Iraq War. Initially occupied by U.S. forces in 2003, it eventually served as the headquarters for numerous insurgent groups operating west of Baghdad, including al-Qaeda in Iraq and its leader Abu Musab al-Zarqawi, until forcibly retaken at the end of 2004. This book describes the campaign that turned Fallujah from a perennial insurgent hotspot to an example of what can be achieved by the right combination of leadership and perseverance. Many books have told of the major battles in Fallujah—this book tells the rest of the story that never made the news.

## *Zero Night*

Mark Felton, Allen and Unwin, 2014
ISBN 9781848317925, 320pp, $27.99

Warburg, Germany: On the night of 30 August 1942 – 'Zero Night' – 40 officers from Britain, Australia, New Zealand and South Africa staged the most audacious mass escape of the Second World War. It was the first 'Great Escape' – but instead of tunnelling, the escapers boldly went over the huge perimeter fences using wooden scaling contraptions. This was the notorious 'Warburg Wire Job', described by fellow prisoner and fighter ace Douglas Bader as 'the most brilliant escape conception of this war'. Months of meticulous planning and secret training hung in the balance during three minutes of mayhem as prisoners charged the camp's double perimeter fences. Telling this remarkable story in full for the first time, historian Mark Felton brilliantly evokes the suspense of the escape itself and the adventures of those who eluded the Germans, as well as the courage of the civilians who risked their lives to help them in enemy territory.

## *ANZAC: The Unauthorised Biography*

Carolyn Holbrook, New South, 2014
ISBN 9781742234076, 266pp, $34.99

Raise a glass for an Anzac. Run for an Anzac. Camp under the stars for an Anzac. Is there anything Australians won't do to keep the Anzac legend at the centre of our national story? But standing firm on the other side of the Anzac enthusiasts is a chorus of critics claiming that the appetite for Anzac is militarising our history and indoctrinating our children. So how are we to make sense of this struggle over how we remember the Great War?

*Anzac, the Unauthorised Biography* cuts through the clamour to provide a much-needed historical perspective on the battle over Anzac. It traces how, since 1915, Australia's memory of the Great War has declined and surged, reflecting the varied and complex history of the Australian nation itself. Most importantly, it asks why so many Australians persist with the fiction that the nation was born on 25 April 1915.

# *Ambon*

Roger Maynard, Hachette, 2014
ISBN 9780733630484, 334pp, $35.00

In February 1942 the Indonesian island of Ambon fell to the might of the advancing Japanese war machine. Among the captured Allied forces was a unit of 1150 Australian soldiers known as Gull Force, who had been sent to defend the island – a strategy doomed from the very beginning. Several hundred Australians were massacred in cold blood soon after the Japanese invasion. But that was only the start of a catalogue of horrors for the men who survived: incarcerated, beaten and often tortured by their captors, the brutality they endured lasted for the next three and a half years. And in this hellhole of despair and evil, officers and men turned against each other as discipline and morale broke down. Yet the epic struggle also produced heroic acts of kindness and bravery. Just over 300 of these gallant men lived to tell of those grim days behind the barbed wire. In Ambon, survivors speak of not just the horrors, but of the courage, endurance and mateship that helped them survive. The story of Ambon is one of depravity and of memories long buried – but also the triumph of the human spirit. It has not been widely told – until now.

# *Flight Command*

John Oddie, Allen and Unwin, 2014
ISBN 9781743319819, 316pp, $32.99

John's appointment as deputy commander of Aussie forces in the Middle East capped a remarkable career of service to Australia. Sadly, this honour also involved the heartbreaking duty of informing families of the deaths of their husbands and sons in Afghanistan and overseeing departure ceremonies for the fallen soldiers.

As well as covering the war in Afghanistan, *Flight Command* provides an insider's account of being a combat pilot in the first Gulf War, a commander supporting peace in Bougainville and security in Cambodia and the often harrowing experience of being a first-response commander dealing with the aftermath of the Boxing Day tsunami in Indonesia.

# *The Lost Legions of Fromelles*

Peter Barton, Allen and Unwin, 2014
ISBN 9781742377117, 425pp, $32.99

The action at Fromelles in July 1916 is Australia's most catastrophic military failure. The story has always appeared simple, but in truth history did not unfold in the way we have for so long been led to believe. Peter Barton has written an authoritative and revelatory book on Fromelles. He describes its long and surprising genesis, and offers an unexpected account of the fighting; he investigates the interrogation of Anglo-Australian prisoners, and the results of shrewd German propaganda techniques; and he explores the circumstances surrounding the 'missing' Pheasant Wood graves. He also brings a new perspective to the writings of Charles Bean.

# 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, and review essays. As a general guide on length, letters should not exceed 500 words; and articles and review essays should be between 3000 and 6000 words. Readers should note that articles written in service essay format are discouraged, since they are not generally suitable for publication.

Each manuscript should be submitted to the *Australian Army Journal* email address, dflw.publications@defence.gov.au. For more information see www.army.gov.au/Our-future

Please make sure your submission includes the following details:

- Author's full name
- Current posting, position or institutional affiliation
- Full mailing address
- Contact details including phone number(s) and email address(es)

Please also include the following fields in your submission:

- 100-word article abstract (please see the following abstract guidelines)
- 100-word author biography (please see the following biography guidelines)
- Acronym/abbreviations list

The article must be presented in the following format/style:

- Microsoft Word (.doc) or Rich Text Format (.rtf)
- 1.5 line spacing
- 12-point Times New Roman
- 2.5 cm margin on all sides
- Automatic word processed endnotes

### 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. 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. Australian English is to be used.

### Abstracts

The most immediate function of an abstract is to summarise the major aspects of a paper. But an excellent abstract goes further; it will also to encourage a reader to read the entire article. For this reason it should be an engagingly written piece of prose that is not simply a rewrite of the introduction in shorter form. It should include:

- Purpose of the paper
- Issues or questions that may have arisen during your research/discussion
- Conclusions that you have reached, and if relevant, any recommendations.

### Biographies

Your biography 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.