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- The Futility of Capability Arguments and the Army Approach to the 2014 Force Structure Review
- Resetting Land Forces for Contingency
- Plan Beersheba: The Combined Arms Imperative Behind the Reorganisation of the Army
- Shaping the Future Battlespace: Offensive Cyber Warfare Tools for the Planner
- The Value of Generic Cultural Training
- Timor Timur: The Untold Story by Lieutenant General Kiki Syahnakri (retd), Indonesian Armed Forces

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EDITORIAL

There are five articles that I commend to you in this last *Australian Army Journal* edition for 2013. The Land Warfare Studies Centre (LWSC) started an embryonic relationship with our British counterpart to 'swap' articles and the first of these appears from Colonel Tim Law, discussing the way in which the British Army is grappling with the same practical and theoretical issues as our army in the post-Afghanistan world. The structural (re)adjustment theme is carried on in two good articles. The first, penned by Lieutenant Colonel Martin White argues for a greater focus on strategic logic in Defence planning while Colonel Craig Bickell outlines the combined arms imperatives he believes are behind the need for Plan Beersheba. A very good attempt at demystifying the world of cyber warfare for neophytes like myself is made by Major Nick Rose. And an argument for how the Australian Army should look at cultural training and why is convincingly made by LWSC's own Major Matt Carr. Lastly, we don't often publish lengthy reviews of books; however we have made an exception in the case of Bob Lowry's outstanding treatment of Lieutenant-General Kiki Syahnakri's book *Timor Timur*. Bob uses his voluminous knowledge of the subject matter to put both the book and the topic into context.

Sadly, this edition of the *Journal* also represents the last time that LWSC will be responsible for its production. That is because LWSC is to be disestablished with effect 31 December 2013. The Centre was established in 1997 with the aim (in part) '...to influence the professional, academic, and community discussion of defence policy, land power development, and related issues.' The innovation that those who supported the concept wished to engender in the unique organization was evident in the DCA's 2005 Directive that charged LWSC with providing land

warfare advocacy, raising the level of professional and intellectual debate within Army and promoting and conducting applied research ‘...free of the constraints inherent in normal staff processes.’ It was a challenge that many took up with gusto throughout its history, but there remained a great deal of unrealized potential in the concept.

Future land warfare research and advocacy is now to become a staff function within Army HQ. Some research tasks will be contracted out. I can’t help but think that just as the Army needs innovative thinking, engagement and advocacy to take us through the challenges of a post-operational environment, we appear to have withdrawn from the intellectual field of battle and made advocacy and research just another Army HQ staff function, subject to the normal vagaries of posting plots and subsequent staff churn.

It is hard to imagine where potentially innovative military thinkers will be allowed to explore and develop ideas amongst a group of people with relatively diverse skill sets and experience, and advocate for them based on how well developed and argued they are, rather than what the next most senior person thinks of them. True independence of thought becomes constrained the moment it becomes a staff function. The then-DCA acknowledged as much in his 2005 Directive. If Army wants to encourage innovative and independent thinking then LWSC is the sort of institution that you would need to invent if it didn’t exist, and yet Army is going the other way. I note that the RAAF has maintained the Air Power Studies Centre and the RAN the Sea Power Centre, while Army has disbanded its Centre and replaced it with an Army HQ Directorate.

It has been interesting, as a reservist Director of LWSC who was not resident in Canberra to see how Army encourages and encourages its members to think. As an army I believe that we place more value on the doers rather than the thinkers, and alacrity as a staff officer is prized more than the way in which an officer can develop, articulate and advocate an idea. As a profession we are taught the value of structure and how to write to inform each other, rather than the value of passion and innovation and how to argue a point in the broader community. Staff branches demand and therefore encourage the former, while a small organization such as LWSC was designed to facilitate the latter. In the absence of LWSC it will be interesting to see how we as an Army provide an institutional ‘home’ for people who want to be intellectually curious and innovative but not a staff officer, want to engage with academia and defence-related interest groups and advocate for Army. I am not sure that subsuming functions into the staff system, contracting them out to academia or farming them out to Defence training institutions is the answer.

Still, a decision has been made and that is the end of the discussion. I hope that people enjoyed reading the Centre's publications, following our tweets, attending our seminars at Russell and our roundtables at Duntroon, and listening to our staff speak to various career courses on innovative thinking or at various conferences on issues various. I am sure the same people would have enjoyed our future planned but never-to-be realised future innovations.

It would be remiss of me not to personally thank all of the current staff at LWSC for their generous support for my efforts to have the Centre pursue its program of research, collaboration and outreach with the occasional tilt at windmills. Most succeeded, some didn't and some of the potentially most fruitful were works in progress but will now die on the vine. The staff we currently have are very talented and I hope Army is able to make use of their intellect within the organization for as long as possible. It is also challenging for the two Deputy Directors who worked for me during my time as Director to have a boss who is both ARes and in Sydney. My Canberra radar was never switched on which allowed me deal with issues on what I considered to be their merit, while they constantly had to deal with ARA superiors whose Canberra radars were never switched off. It can't have been easy for them. Finally, thanks should also go to the past Directors of LWSC who both built it and maintained it when it was difficult to convince people that such an institution was required in the Army. The 16 years that LWSC existed for is testimony to their doggedness and determination.

For all of its frustrations I have thoroughly enjoyed my time in LWSC and dealing with the *Journal* and other publications. For all my complaints of Army officers' lack of writing skills and intellectual rigour I have been fortunate to be reminded of their professionalism and camaraderie every time I have had to go to Canberra. When I was told that LWSC was to be disbanded, I wrote to a friend telling him that 'the Visigoths have breached the walls' – the remark was made mostly in jest but not entirely. Army needs officers who are questioning and both intellectually curious and rigorous; they will be sorely needed in the years ahead. Yet neither the staff nor the military education systems are set up to develop either. Without LWSC as a small beacon of intellectual diversity within Army, the organization runs the risk of seeing thinking purely as another staff function with all the inherent limits that this imposes. But that is now for other people to think about. To the rest of you, thanks for the opportunity to serve and good soldiering. ■

CAPABILITY

The Futility of Capability Arguments and the Army Approach to the 2014 Force Structure Review

Lieutenant Colonel Martin White

ABSTRACT

The traditional Army capability-based approach to the 2014 Force Structure Review (FSR), no matter how coherent, is likely to continue to see Army as comparatively worse off than the other Services. For greater success, Army requires a long-term strategy, over a number of years, to break down decades of strategic culture and defence policy trends. Most importantly, Army needs to redefine the current (albeit undeclared) defence policy priority of providing niche combat forces to United States-led expeditionary operations, based on the perceived North Asian risk, to a near-region focus.

In 2011 Major General Caligari pursued what he referred to as the 'golden thread of logic' in developing Army's force structure.¹ In doing so, he was one of many who sought to justify Army's force structure primarily through logical capability-based arguments, particularly through the Force Structure Review (FSR) process. However, strategic logic has not always been a major trend in Australian defence policy, and Army's attempts to work within FSR frameworks have resulted in poor resource allocation to achieve declared tasking priorities, particularly when compared with the other services.

This article contends that Army should prioritise its 2014 FSR effort towards establishing a credible basis of near-region threat and risk rather than focusing on capability arguments. This will produce a more balanced defence force structure based on declared priorities. This is no trivial task, and a change to risk and threat perception would represent a dramatic break in decades of defence policy continuity and ambiguity. Significant change will not be achieved in a single FSR, and Army's approach would need to be part of a long-term strategy. This article will highlight the history of significant departmental impetus to maintain force structures primarily to allow niche combat contributions to United States (US)-led expeditionary operations, a feature of defence policy identified consistently over time by numerous commentators.² Army faces the possibility of being under-resourced (compared with Air Force and Navy) for declared tasks if it continues to focus on the standard capability-based FSR input.

To break this longstanding continuity in defence policy, Army should consider developing a long-term 'strategy' for FSR 2014 and beyond, with primacy of effort placed on redefining the threat rather than justifying capability. Such a strategy should seek to move the focus away from niche combat capabilities aligned to US-led operational scenarios, and may include gaining external assessments of the contemporary threat, developing measures of effectiveness, influencing classified context scenarios, highlighting the inconsistencies within the current declared maritime strategy, adding a threat component to Army Capability Needs Documents (ACND), and learning lessons from previous attempts to redefine the threat assumptions underlying defence policy.

Army's disadvantage in the FSR process

FSRs have periodically been undertaken to provide force structure options to the Australian government. For example, the aim of the 2012 FSR, led by Major General Crane, was to establish costed force structure requirements in the period until 2035.³ FSRs are not the only tool used to determine defence force structure — defence policy formulation is a complex process involving a broad mix of stakeholders. In the past, FSRs have been primarily focused on 'capability-based planning' rather than responding to specific threats and have generated inputs to White Papers.

FSRs often represented a continuation of previous policy and have rarely been a 'revolutionary' activity. Major General Crane acknowledged that the 2012 FSR was not a 'clean sheet' review given its focus on 'refining' existing policy, and was heavily influenced by the 2009 White Paper.⁴ Indeed, single FSRs are unlikely to be able to make significant changes to existing major procurement plans. It is possible, however, that significant changes could be made across a number of FSRs, although that would require a consistent approach over time.

Comparative disadvantage

FSRs have traditionally been riven by inter-service rivalry. Given contemporary budget pressures, there are indications that such rivalry will again feature in 2014 FSR discussions.⁵ This augurs badly for Army, which has historically suffered a comparative disadvantage compared to the other services when procurement decisions were made. Policy documents have consistently relegated Army capability to a level below that of the other two services. For example, the Chief of the Defence Force and Secretary introductory letter from the 1991 FSR stated: 'we propose a long term restructuring program [to convert] some combat capabilities — particularly in Army, to the Reserves'.⁶ The 1986 Dibb Review similarly sought to reduce Army capability, prioritising air strike, anti-submarine warfare and maritime surface forces as headline capabilities. In the 'incredible event' of armed incursion into Australia, Army would need to secure vital assets to allow air and maritime projection.⁷ These priorities and tasks were generally reconfirmed in 1991.⁸

The headline combat capabilities foreshadowed in the 2013 White Paper again highlight this comparative disadvantage — Joint Strike Fighter (JSF), Air Warfare Destroyers, submarines, amphibious ships, strike capability and airborne electronic attack. The major Army-specific initiatives highlighted in this White Paper comprised a partially completed restructuring of the brigades and vehicle fleet replacement with reference to the enhancement of Army's force projection through Navy's

amphibious vessels.⁹ Planned acquisitions identified in the 2013 White Paper were heavily skewed towards maritime and air capabilities, often with tenuous links to declared priorities.¹⁰ For example, the Growler, optimised for electronic suppression of air defences, is only likely to be employed to maximum capacity as a niche contribution to US-led high intensity operations. Such expensive and arguably unnecessary hardware involves an opportunity cost for both Army and Defence.¹¹ The expenditure required for advanced technology has historically led policymakers to cut back in other areas.¹² While the likelihood of Army's suffering some disadvantage in the 2014 FSR has not been foreshadowed as clearly as it was in 1991, the intention to seek preferred resourcing of Air Force and Navy is already apparent.

Senior Army officers have also identified the risk to Army. Lieutenant General Morrison has argued that, 'peace dividends seldom accrue' and warned of the 'serious deficiencies' in land forces exposed during INTERFET after previous downsizing. Former Chief of Army, Lieutenant General Leahy, asserts that withdrawal from Afghanistan should not result in adoption of 'a narrow view of Army's future' or a view of Army as a 'strategic afterthought'.¹³ Mark Thomson, a long-time commentator on the Defence budget, comments that 'one thing is sure; [government] will have to face up to the perennial question of Australian defence planning: the balance between the Army ... and high-tech air and maritime platforms. With the Army returning home to barracks, the natural tendency will be to repeat 1991 and shift resources to investment for the Navy and Air Force.' Thomson has repeatedly highlighted the large gap between plans and funding, and if major projects such as 100 JSF and 12 submarines are considered immutable, Army will undoubtedly be affected.¹⁴ There is a clear risk that, through the 2014 FSR, Army will be under-resourced to achieve land-centric tasks similar to Timor Leste or Solomon Islands in the near region.

Taiwan versus Timor as the primary force structure determinant

Despite consistent policy declarations that Defence is structured primarily for near-region responses, operational actions and procurement decisions demonstrate otherwise. Many commentators have suggested that strategic logic has not driven defence force structure, and that policymakers have primarily sought capabilities that are on, or interoperable with, the US inventory. Such decisions were driven by service motivation, military group-think, a government responsibility to merely 'endorse' rather than 'examine' capability requirements, and a history of buying equipment that resided on US inventories.¹⁵

Policy ambiguity

Defence policy has been characterised by longstanding ambiguity. Cheeseman has been vocal on this issue over several decades, declaring that:

*Australia appeared to have two defence policies in place: a secret one ... preparing the ADF for war on the Korean Peninsula or in the South China Sea, and a sanitised version which was for ... defence of Australia and its interests.*¹⁶

The declared near-region priority would appear to place a high priority on Army force structure, including capabilities such as land logistics. However, an undeclared US support provision priority is disadvantageous to Army and to the primary declared tasks. Commentators such as Stone have identified the frequent divergence of broader public policy from practice, and a similar trend in defence policy has been detrimental to Army capability.¹⁷ Army is encouraged to conform to a declared geographically situated 'maritime strategy', but Australia's actual approach is an 'alliance strategy' predicated on the provision of niche combat forces for expeditionary operations. The Chief of Army recently described the extensive Army role in a maritime strategy — Army indeed has a role in a maritime strategy, but such a strategy has not been enacted.¹⁸

The most important divergence between defence policy and practice has generally concerned geography. The importance of geography in defence planning has rarely been apparent in Australian military commitments, although policymakers consistently asserted that geography was a defining feature of security.¹⁹ While clearly a variable, policy was never fully (or even mostly) determined by geography, and US-led operational scenarios (such as operations in North Asia) have historically dominated defence policy thinking.

The new justification to maintain force structure inertia

The policy approach to China's growth in military capability is a contemporary example of the enduring defence policy duality, and highlights why FSRs present such difficulties for Army. Declared policy under both Liberal and Labor governments warned of the economic and military rise of China, subtly reinforcing, but not explicitly labelling China as a twenty-first century threat to Australia.²⁰ However, there is compelling evidence that an ability to contribute niche combat capabilities to US-led expeditionary operations in North Asia has primacy for policymakers.

Prior to the 2009 White Paper release, a media leak highlighted a disagreement between policymakers such as Prime Minister Rudd and the White Paper team, who considered China a potential threat of the future, and Australian intelligence

community leaders who regarded China as presenting less risk.²¹ After the release of the 2009 White Paper, a classified diplomatic cable published by Wikileaks also identified Prime Minister Rudd's concerns over China, alleging that he had encouraged the US to be prepared to use force against China.²² Other actions, such as the recurring refusal to allow major Chinese investment in Australia's energy, telecommunications and agricultural markets, also implied that China was a security problem.

Some commentators found Australia's approach to China's development alarmist.²³ In the 2009 White Paper the Rudd government announced its intention to increase sophisticated weaponry which was less suited to declared priorities.²⁴ The 2013 White Paper maintained the intent to develop 12 submarines with an ability to reach North Asia, rather than seek off-the-shelf submarines with reduced range.²⁵ Without being foreshadowed in the 2009 White Paper, the Gillard government agreed to the establishment of a US Marine Corps presence in Darwin. These acquisitions and decisions were ostensibly based on no specific threat, but rather broader security concerns and the US 'pivot'. The 2013 White Paper described this US basing as 'a natural development in our bilateral relationship'.²⁶ Heightening threat perception, the 2013 White Paper referred to the 'challenging' nature of a 140% increase in Chinese defence spending, but reassured that the US still maintained 41% of global defence spending. Furthermore, while any Australian concern over China's military expansion was left undeclared, Japan's alarm at this expansion was highlighted.²⁷

Perception of Chinese threat is not new in defence policy. The 1953 Strategic Basis declared that 'The rapid rise of Communist China ... and its development into a potentially powerful military power' was a matter for force structure consideration.²⁸ The 1994 White Paper expressed its concern that policymakers did not understand the effect of China's development on global security.²⁹ O'Keefe deduced from the 2000 White Paper and procurement decisions that the Howard government was planning for the possibility of military containment of China, in alliance with the US, but because such a policy was undiplomatic, presented it ambiguously.³⁰

There is certainly evidence of Chinese action to rapidly militarise with ambiguous motives, and the enormous improvement in Chinese military capability has been regularly highlighted. However some estimates assess that the official Chinese military budget is two to three times smaller than the actual figure due to secrecy and military income accrual from commercial ventures. Aggressive cyber action by China is regarded as further evidence of a belligerent approach.

While any perceived military threat from China (like assessed threats from Japan, Indonesia, Vietnamese communism and the Soviet Union in the past) is not independently defendable, there is no credible evidence that China has any adverse military intentions towards Australia or the near region. Given traditional animosity between China and its closer neighbours, and with evolving strategic rivalry, a conflict scenario would almost certainly be based on Australia's being led into superpower competition. Without doubt, the rise of China challenges countries to formulate political, economic and security responses. The historical response of Australian policymakers has been recurrent, with Chinese development prompting concern and justifying a subsequent defence policy response — an alliance focus that was not aligned to declared priorities. Indeed Babbage predicted that the defence force structure response to the emergence of China would simply be a continuation of longstanding defence policy due to 'institutional inertia'.³¹

Based on significant evidence, it is reasonable to conclude that policymakers have placed most weight on the perceived threat from China and maintenance of the US alliance when considering force structure. This focus on perceived threats outside the near region places Army in a position of entrenched strategic disadvantage during FSR negotiations and, more importantly, limits the capability most appropriate to conduct sustained near-region operations. Senior Army officers have regularly argued that Army suffers because air and maritime platform gaps can be simply articulated, whereas the many components of a brigade cannot. While the difficulty in describing Army gaps is clear, this is not Army's main problem. If policymakers were prepared to increase Army resourcing, the perceived difficulty of capability gap articulation would not be an impediment. Whether it is a declared or an undeclared scenario, a focus on the US alliance and North Asian conflict as the primary force structure determinant will always lead to technologically sophisticated (and highly expensive) air and maritime platform prioritisation.

A force structure for all contingencies

Since World War II, Australian policymakers have maintained continuity in military force structure prioritisation. Stone has identified a trend in public policy in which policymakers develop a solution first and then formulate a problem that requires that solution.³² While policymakers may have considered degrees of self-reliance following the Vietnam War, the inevitable solution since World War II, despite a variety of assessed threats, was maintenance of ANZUS and a supporting force structure.

There have been many instances of perceived or declared threats to Australia since World War II, justifying close US ties. Prime Minister Curtin deviated from the intelligence assessment when presenting the threat to Australia from Japan during World War II, and the inability of Australia to independently respond to this particular threat created an enduring sense of vulnerability and need for alliance.³³ The Cabinet-endorsed 1946 Strategic Basis identified the Soviet Union as a 'potential enemy of the future'.³⁴ The emerging nationalism in Indonesia in the 1960s was viewed with concern, with the proposed mitigation closer US ties.³⁵ Prime Minister Menzies volunteered Australian military involvement in Vietnam due to the declared risk of the spread of communism.³⁶ The policymaker response to different threats was a consistent force structure with niche combat capabilities able to operate with US forces.

Burke writes extensively on the role of fear in Australian defence policy and strategic culture, and asserts that exaggerated fear was at least partly responsible for identification of (and response to) different perceived threats.³⁷ Ball argues that Australians have been historically much more fearful of attack than objective analysis warranted.³⁸ This deep cultural and historical trend presents a problem for Army as it seeks the necessary resources from the 2014 FSR.

The immutable alliance

Despite the post-Vietnam recognition of the merits of greater operational independence, Australian policymakers have consistently emphasised ANZUS as the guarantee of security. The cost associated with maintaining operational independence (particularly for logistic support and technology transfer) was traditionally deemed prohibitively high.³⁹ Military hardware procurements, justified publicly as capabilities suitable to mitigate a range of uncertain threats, were often underwritten by an expectation of US support in US-led missions.⁴⁰ For example, the commitment to purchase up to 100 JSF aircraft has long-term force structure implications, but low priority has been assigned to projecting and basing these platforms independently (without US support) in the near region, and there is extensive reliance on US global sustainment.⁴¹ If a higher level of independence in the near region is the main priority, then this support arrangement is questionable. However given anticipated operational scenarios in support of ANZUS, this lack of ability to force project poses little risk.

Challenges to the US were often associated with challenges to Australia, and ANZUS became deeply embedded in strategic culture. For example, Burke argues that, at one point, Prime Minister Howard linked support for ANZUS to patriotism.⁴²

Former Secretary of Defence Tange observed that bureaucrats in the 1950s could not question the certainty of US support.⁴³ Demonstrative of the deep commitment to the US, Defence acknowledged the existence of 'several hundred committees and working groups' conducting interoperability-related activities.⁴⁴

However support to the US was not necessarily provided because Australian policymakers felt a sense of obligation. For example, Prime Minister Menzies' anti-communist and forward defence stance and his vision of strategic culture saw Australia become actively involved in the Vietnam War, despite the fact that the Army had recently substantially reduced its inventory.⁴⁵ Australian policymakers were not reluctant participants with the US, indicating the conscious long-standing decision of prioritising US interoperability over near-region independence.⁴⁶ Priority for ANZUS was calculated, predicated on the perceived threat of the day.

The potential benefits of ANZUS were sufficient to ensure that, in recent times, no Australian policymaker raised any doubt over the continuation of this close alliance. This is a deeply embedded factor that, if unchallenged, is likely to disadvantage Army in the 2014 FSR. Such 'alliance dues' have historically seen resources assigned to air and maritime hardware in order to achieve US interoperability.

Fighting the trends in defence policy

Further policy challenges compound the FSR problem for Army. An altered threat assessment focus would conflict with enduring policy procedures and trends. This article will argue that two key trends, often identified by commentators, reinforce defence policy inertia and give priority to capabilities that can be offered to a US-led coalition. An Army FSR strategy should understand these limitations.

Transition from specific to generalised policy

First, defence policy has transitioned from specific but classified information to broad, ambiguous and publicly available information. Fruhling comments that 'In the late 1960s [Strategic Basis Papers] became more comprehensive ... and significantly longer.'⁴⁷ There has been a proliferation of policy documents from a single Strategic Basis Paper prior to 1976 to tens of publications in the current era.

Since World War II, defence policy has been articulated in several different formats. Strategic Basis Papers comprised a classified review of strategic circumstances by the Defence Committee focusing on essential elements of defence policy. The classification offered protection for forthright defence assessments.

Peripheral aspects of policy such as supporting concepts were rarely mentioned. White Papers were initiated in 1976 as a government statement to the public, allies and potential adversaries. These were heavily sanitised and evolved to highlight a broad range of non-core issues (such as personnel management initiatives). There is now a detailed hierarchy of classified and unclassified policy and capability development documents.⁴⁸

The number of defence policy documents has increased markedly over time and, while it is important for policymakers to codify policies, there are risks and advantages from producing multiple policy documents. The ambiguity created by this method of policy articulation has contributed to inertia in defence policy and offered policymakers the ability to obscure or justify a range of different decisions.

The transition from specific to generalised policy has allowed justification of a range of different capability procurements, offering flexibility to policymakers. While this could be seen as an opportunity for Army, the reality is that it has historically worked in favour of Navy and Air Force. There will be significant pressure to maintain longstanding force structures during the 2014 FSR.

Justification of existing policy and hardware

Second, as Stone argues was common in broader public policy, defence policy regularly justified previous actions and decisions, particularly for force structure.⁴⁹ This was due to factors such as service influence, strategic culture, long equipment procurement periods, and the involvement of both major parties in force structure decisions.⁵⁰ In addition, institutional design, with ministers appointed to portfolios without specific expertise, potentially compels their focus on the most important and pressing issues and limits their desire to significantly change procurement programs.

The political desire to justify previous policy, particularly expenditure on major military hardware, contributes to inertia and is another 2014 FSR challenge for Army, even with changing geostrategic circumstances. Military hardware acquisitions with long life-cycles are a disincentive to change. For example, the 2013 White Paper highlighted that 200 million dollars had already been invested in analysing options for the new submarine project which was not due for delivery until after 2031.⁵¹ The submarine project may be even more difficult to change given its linkage to Australian employment. With historical bipartisan support for military hardware procurement, major political parties generally supported the procurement of combat hardware. The F-111 strategic strike aircraft is an historical example of bipartisan support over many decades, and both parties have flagged their support for the JSF.

New declared threats justified ongoing expenses and the continuation of existing acquisition plans. Despite being presented with a range of different geostrategic scenarios and assessed threats, continuity was historically the key feature of defence policy. For example, the early release of the 2013 White Paper was predicated on the declared need to address 'significant international and domestic developments' such as the 'military shift to the Indo-Pacific',⁵² but with few changes to planned hardware acquisition except for the deferral of some projects due to budget reductions.⁵³

Previous threat redefinition

If Army is serious in seeking to reframe the argument away from North Asia, then there is value in examining previous attempts to change underlying threat assumptions in defence policy. The 1986 Dibb Review was the only previous public example in which a fundamental reappraisal of the basis for defence force structure was sought, and this review has been analysed in depth.

Relevant to this article, the Dibb Review was used to inform or justify the 1987 White Paper, but was never fully enacted,⁵⁴ in part due to its failure to gain the full support of defence policymakers and some commentators.⁵⁵ Defence often argued against the limitations imposed under a Defence of Australia (DoA) policy, and that force structure was not aligned, with Defence 'allowed and indeed encouraged to prepare to defend Australia and its interests on too many fronts.'⁵⁶ Defence procurement did not follow the declared priorities. DoA proved unpopular in Defence because it did not conform to deeply held views of Australia's strategic culture and expeditionary history. Furthermore, the Hawke government applied no formal measure of effectiveness to determine the success of DoA implementation.

However, DoA concepts were central to all White Papers because the principle of prioritising security interests geographically was either politically attractive or necessary. Indeed, the 1994 White Paper was argued to be a continuation of DoA.⁵⁷ The geographical basis of DoA remained clearly identifiable in the 2009 and 2013 White Papers.⁵⁸ However, through reinterpretation in various White Papers and significant commentary, the meaning of DoA became blurred,⁵⁹ with commentators such as Babbage applying their own interpretation to Dibb's original concept.⁶⁰ Such reinterpretation of a politically popular concept may present an opportunity for Army, which has strong justification for continued hardening.⁶¹

The risks of threat redefinition are clear. For land forces to become a higher priority, a review as fundamental as Dibb's may be necessary and, even then, implementation of the recommendations may be challenged. If policymakers declare a new threat but do not act on it, policy ambiguity remains, and sophisticated and interoperable air and maritime hardware will retain priority. There may also be a risk to the broader Defence budget if the most challenging assessment of the threat (combat contributions to US-led expeditionary theatres) is not maintained, and this may meet with opposition from other services. If Army seeks a changed threat assessment, the power of inertia and justification of existing and planned capability will become apparent.

Seek to modify, or work within existing structures?

Army has historically worked within presented risk profiles, often with poor resourcing outcomes, although with possible avoidance of traditional service rivalry.⁶² The option for Army described in this article is to pursue change to threat and risk perceptions over time. Perceptions and scenarios will be difficult to change, but failure to change them will almost certainly see a repetition of the historically low emphasis placed on Army at a time when there are no major operations being undertaken. A consistent, long-term Army strategy is necessary to change entrenched policy trends.

First, as a priority, Army may seek to develop or contribute to the development of credible near-region threat scenarios, both public and classified, against which each service should justify its force structure. The process of FSR scenario and threat development can be negotiated, but this negotiation must occur at the beginning of the FSR, and may require ministerial support. Accepting a discussion of North Asian risk and US-led contributions as a primary or unstated influence on the FSR is likely to be to Army's detriment. Despite the declared capability-based approach to the development of defence force structure, the representation of the threat is far more influential in FSR outcomes than capability-based arguments within the standard framework. Army will undoubtedly present a coherent capability plan; however, Army is destined for disappointment if policymakers maintain their current view of the threat to Australia.

In 1986, Dibb gained support in part because he was an external agent contracted to provide a basis for policy. Sourcing external support to develop threat scenarios may be an option for Army. Internally, the intelligence community has also historically been more likely to present near-region threats as the most important factor for force structure.

The opportunities for Army may lie in its ability to reinterpret concepts that already exist within policy in order to advance land force arguments. The blurred definition of DoA may be a good model. For example, with (a genuine) near-region prioritisation declared in all White Papers, force structure decisions for some of Defence's most expensive combat air and maritime platforms may seem questionable. Conversely, concepts such as the 'Hardened and Networked Army' remain valid based on the ease with which the most unsophisticated threat forces could quickly develop lethal capabilities such as improvised explosive devices in the near region. Army can use external and internal threat assessments to reinterpret existing concepts but may have to be forceful in influencing policymakers' understanding of near-region prioritisation.

This relates to the second recommendation. Army may seek the implementation of public Measures of Effectiveness (MOE) for current capabilities against declared defence policy priorities. The important lesson from the Dibb review was that his assessment was not fully enacted, and Army may need a means to ensure that each service complies with an agreed understanding of the threat. The most technologically sophisticated Air Force and Navy platforms have consistently been related to near-region threats, even where there is minimal applicability. For example, a Defence statement on the acquisition of the Growler electronic warfare aircraft explained that the capability 'will be able to support the full range of Defence tasks from evacuations to major conflicts.'⁶³ Public MOE would at least maintain attention on declared defence priorities allowing an assessment of the relative utility of different platforms. In that context, Growler may be viewed as a 1.5 billion dollar solution looking for a near-region problem. Conversely, capabilities such as land logistics, tenuous during INTERFET and eroded further since then may become a higher priority.⁶⁴

Third, internally, ACNDs could be altered to ensure that the 'need' is not just a capability desired by Army, but rather will mitigate a near-region risk or threat. Prompting Army planners to consider the threat whenever an ACND is developed, can add more discipline to the gap identification process. Support for this process may require the engagement of senior intelligence staff in various Army headquarters.

Finally, as observed during the Dibb review, even if Army were to be substantially successful in reframing the threat, this may not bring the desired result. Partial focus on North Asia and the need to contribute to the US alliance will still be influential. The enduring nature of defence policy ambiguity and the influence of each service will provide the impetus to use any justification to maintain existing force structures. The time horizons for procurements will also work against Army. Genuine adherence to near-region force structure determinants will create different winners and losers among the services.

The appointment of a new Defence Minister may present the opportunity to review procurement plans. As identified earlier, this will be difficult as some of the plans introduced in the 2009 White Paper have not been fully enacted or included in the budget. A change in government may present an opportunity to reconsider the basis for certain procurements. However, this is not a short-term proposition, and a 2014 FSR strategy must seek changes over time.

The path to a more sustainable land force for the most likely operational scenarios is a difficult one. However, the risk to Army (and to Australia's national security) of not taking this path appears much greater. The maintenance of independent service force structure aims from the 1960s and 1970s is still apparent and this remains a risk for Australian security.⁶⁵

Conclusion

While structures change over time and should not be viewed as immutable, Australian defence policy has proven to be durable over many decades. A clear Army strategy for the 2014 FSR and beyond appears necessary to allow Defence to achieve its declared priority tasks. A consistent Army strategy over a number of years is necessary to influence or change deeply embedded strategic culture, enduring policy trends, and procurement decisions that can span decades.

The major component of an Army strategy should be an attempt to change the perception of the risk and threat that underscores defence policy. This may require an external point of view to be presented. In the only example from the last 30 years of an attempt to change the threat perception, the Dibb Review was used to justify policy, but was never fully implemented and policy ambiguity remained.

Policy ambiguity has positive and negative aspects. Importantly for policymakers, the method of defence policy articulation has allowed flexibility, offering an ability to declare the politically acceptable near-region prioritisation while pursuing hardware to contribute to US-led expeditionary operations as a priority. Army has historically had strong justification for greater investment, but air and maritime platforms have been prioritised.

Service rivalry appears to be a reality of the future as the defence budget contracts. With recent 2013 White Paper announcements, a long-term FSR strategy may be the method to ensure that Army is well-placed in the emerging fight.■

THE AUTHOR

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CAPABILITY

Resetting Land Forces for Contingency

Colonel Tim Law (British Army)

ABSTRACT

The conclusion of combat operations in Afghanistan opens the debate over how land forces can be best structured, equipped and manned for future tasks. In conditions of substantial uncertainty roughly equivalent to those that prevailed in the lee of the Cold War, the British Army must shape the broader defence debate if it wishes to remain relevant. While this will present a challenge given current resource constraints, this article offers a potential roadmap for the journey ahead, building on the Army's strength and purpose, and mitigating its weaknesses. Many of the ideas expressed are contained within the British Army's conceptual development agenda and could well become part of its future strategy as we approach a Strategic Defence and Security Review.

Introduction

During the Cold War, the armed forces of the United Kingdom (UK) focused their attention on a continental land war against a peer adversary that compensated for its relative lack of technological prowess with overwhelming mass and a comprehensive nuclear arsenal. With the Soviet Union's demise, the UK lost the 'benefit' of a known adversary. And with the potential for a 'peace dividend' for investment elsewhere, articulating a new role for Defence presented a number of challenges. In the event, civil conflict in the Balkans served as a timely means to develop new roles in peacekeeping, peace enforcement and peace support operations. From a force development perspective, the rapid drawdown of our predominantly Germany-based army led to land forces shifting their focus, adapting equipment and structures previously geared towards major combat operations to something altogether different. In doing so, lessons learned against an irregular adversary in Northern Ireland were incorporated into doctrine hastily rewritten to meet the requirement.

We have now reached a similar hiatus and need to consider how best to adapt our organisations, equipment and personnel to a period of strategic uncertainty. This is a task far less easy than it sounds. For a start, recent campaigns, however successful at the tactical level, have ingrained certain characteristics into the military not necessarily suited to unpredictable strategic environments. Evidence from collective training, for example, suggests that many soldiers are cognitively less well equipped for long periods of austerity without recourse to secure tactical basing. Attitudes to casualties, Improvised Explosive Devices (IEDs) and Rules of Engagement (ROE) have also developed into untenable articles of faith for future contingency operations.

Although the immediate future has often been termed a 'return to contingency' within the British Army, there is no return to the sort of relatively heavy combined arms manoeuvre prevalent as a doctrine prior to the UK's commitment to Operations Telic, Jacana, Fingal and Herrick.¹ The reasons for this are manifold:

- There is little to suggest that our contingency readiness prior to Operation Telic (Iraq) in 2002 had geared land forces effectively for the protracted task they were about to undertake; we should not therefore be too ready to re-adopt the same profile. Arguably, we had not entirely identified how the character of conflict might evolve and were therefore relatively ill-prepared for stabilisation tasks in 'wars amongst the people'.

- Our focus on the enemy and ground created the capacity for rapid tactical manoeuvre at high tempo, but did not force commanders to consider the impact of their operations on the mindset of the people amongst whom and with whom they operated.
- During that period we had different equipment, some of which has since gone out of service. We now have new equipment, much of which was acquired primarily for stabilisation operations and has not been tested in environments geared to the high-tempo requirements of major combat operations.
- We have a whole generation of officers and soldiers whose only experience has been in conducting counter-insurgency and stabilisation operations, largely executed at sub-unit level and below. While their skill in integrating joint enablers and land capabilities is generally far greater than that of their predecessors, the current generation lacks experience in high-tempo integrated battlegroup operations.
- International norms and expectations — the readiness of policy-makers to authorise the use of force where civilian casualties might result, for example — have developed through the international community's involvement in and observation of conflicts in Iraq and Afghanistan.
- We do not have the resources in our core program to prepare for contingency to the same degree we had in the past.
- Lessons from other operations (for example, in Mali and Libya) have been introduced into our lexicon. In particular, the speed of response (strategic and operational mobility) by the French in Mali suggests that 'fast power' may form an element of what is required in the future.²

For the future, the British Army (and land forces in general) must move from its familiar, heavily orchestrated task-specific 'readiness' to a period of less predictable 'constant readiness'. Put simply, it must prepare for a broad range of operations across the mosaic of conflict. To be relevant, land forces must be able to cope with both the enduring nature and changing character of conflict, and adopt profiles of readiness for a range of scenarios that cannot yet be envisaged. They do not necessarily require new equipment to do this; in post-Cold War operations 'new uses [were] found for old weapons and organisations'.³ Institutional learning and adaptation, however, must be incorporated into our psyche, and lessons must be geared towards the production of new concepts.⁴

We do not know whether future conflict will be ‘conventional’ or ‘unconventional’, or indeed whether these terms will have any real relevance. We cannot guarantee that campaigns will follow a particular path, that the government will seek to constrain our expeditionary ambition to a particular geographical zone, or that we will become environment specific. Although recent publications offer consolidated thoughts on the threat and operational environments in which land forces will need to be capable of conducting operations, they serve mainly to underline the uncertainty of it all. In such circumstances, the requirement is for rapid agility — both in the physical and cognitive domains. This will ask a great deal of our people.

There are things we used to do to which we need to return, and there are things we do now that we may do well to stop. But there are also many things we have learned from our experience in Afghanistan and Iraq that will serve us well.

The likely future character of conflict has been well articulated, and the endorsed view (‘The Future Character of Conflict’, due shortly to be revised by the UK’s Development, Concepts and Doctrine Centre) remains valid as a baseline. Land forces will be required to operate within an environment that is — at the same time — congested, cluttered, contested, connected, constrained and coalition in nature. Many of these factors will be familiar from recent experience. What has changed, however, is our degree of understanding concerning the threat environments in which land forces may deploy. After years of gearing tactical actions to the strategic objectives of NATO (and the UK) in Afghanistan, a similar environment should be envisaged, but with new endstates, new adversaries and different dynamics in general. Moreover, while Afghanistan may well represent a fair reflection of the sort of physical and human terrain into which land forces may be propelled, both threat and task could differ substantially.

The future will almost certainly be multi-polar and involve a policy environment dictated by the government’s key objectives of ensuring a secure and resilient UK and shaping a stable world.⁵ The state will almost certainly remain the defining actor of the international system, although its relevance may be diluted by the continued effects of globalisation and by supra and sub-national organisations and movements. The increasing world population will drive and concentrate the demand for resources (water, food and energy in particular), particularly in the developing world.

In order for land forces to contribute to the UK’s capacity to wield ‘soft’ power, whether through Defence engagement or by other means, there is an uncompromising requirement for them to excel at warfighting.⁶

Should deterrence fail, land forces must be able to intervene and apply decisive lethal force to defeat adaptive, hybrid — potentially peer — adversaries within the land environment. But they must also have the capacity to conduct — simultaneously if necessary — less lethal operations designed to stabilise or provide humanitarian succour. The principal difficulty will lie in preparing them, both in a physical and cognitive sense, for all eventualities.

In order to do this, land forces will need to calibrate their approach such that they can apply combined arms manoeuvre in line with the principles of war, using a manoeuvrist approach and with mission command a central tenet of their philosophy. They must also invest substantially — more so than they do at present — in the ‘centrality of influence’ in achieving their objectives, noting that this requires a higher degree of understanding than has previously been the case.⁷ So, while pre-Telic land forces were broadly capable of manoeuvre in the physical domain, post-Herrick land forces must also be capable of manoeuvre in the cognitive (human) and virtual (information) domains.

The UK remains likely to deploy forces across the world to secure resources, ensure stability, or to support international disaster relief efforts. Such deployments may bring us into conflict with a variety of adversaries and rivals. These may range from peer armies, formally part of a functioning state, through to state-sponsored or state-supported groups, and groups not formally representing any polity. Combinations thereof represent what many have termed a ‘hybrid threat’. We are almost certain to be deployed into situations of poor governance, economic deprivation and inequality, in which the civil authorities are being overwhelmed or ignoring the plight of the population. The societies in which we will operate will almost certainly be culturally and linguistically different to ours.⁸ We will be required to operate within limits defined by a mandate and by our political leaders. With a reduction in time from concept to delivery, high technology items will be widely available and widely used. This proliferation of technology means that we will almost certainly have lost the broad technological edge that has traditionally offset our lack of numbers. In addition, lower governance overheads in less developed nations could well contribute to a more rapid acquisition of technologies in future.

Our most likely adversaries and rivals (as well as some of our partners) will come from, or resemble, the local society. They are likely to be amorphous, changeable and agile rather than hierarchical. It is likely that they will, at the very least, have access to some of the levers of power traditionally wielded by a state. As such, we should focus on achieving our outcomes and not on our adversaries and rivals, lest we surrender the initiative. Like Fabius Maximus,⁹ our adversaries

will seek to avoid our strengths; it is almost certain that they will choose to fight where our capabilities are ill-suited and our actions most constrained.

Noting David Kilcullen's most recent thoughts, this will almost certainly be populated urban terrain, with a realistic probability of being located in the littoral. We cannot, however, rule out the requirement to operate in dense vegetation and in the desert. Nor can we ignore the possible requirement to defeat a peer enemy. If we do so, we will surrender the hard power that underpins the UK's soft power and deterrence, and undermine credibility with our allies and other prospective partners.

Our most likely adversaries will have increasing access to technology at a level comparable to ours, and will generally be attracted to those capabilities that are simple to operate and require little maintenance or support. They are likely to seek a Chemical, Biological, Radiological and Nuclear (CBRN) capability, and will employ anti-access and area denial systems. Their capabilities may be modified, geared to the situation at hand, and used in novel ways.

The tempo of operations will accelerate. We will continue to be heavily reliant on the virtual (information) domain, and our adversaries and rivals are almost certain to exploit this in order to operate flexibly and to fight the battle of the narratives. Given that military intervention will seek to set conditions rather than secure outcomes, the opinions of the people (local, regional, home and global) will be crucial to success. We must, therefore, regard influence as an outcome and not an activity; this will be difficult in a world in which social media and citizen journalism may set the information agenda.

We will continue to be reliant on existing infrastructure and civilian capabilities to deploy, sustain and recover the force. This is a vulnerability that our adversaries are likely to target. We will not be able to achieve our objectives and those of the government unless we operate comprehensively with JIIM (joint, interagency, intergovernmental, multinational) partners and usually in a supporting role.

Finally, despite the desire of the government to avoid protracted operations of prolonged duration, we should also note that the length of time committed to operations has historically been longer than first anticipated.¹⁰

Noting the UK's competitive advantage, land forces should aim to develop their strengths in such areas as:

- the intellectual capacity of the officer corps to combine a good degree of situational awareness with cultural knowledge based on education and develop a fundamental understanding of the situation;¹¹

- the capacity to exploit relationships and linkages between allies, the host nation and inter-agency partners to generate understanding and leverage resources that support our operational design;
- the capacity to deliver precision lethal effect, through liaison and interaction with Special Forces as well as the delivery of well-targeted joint fires;
- the ability to integrate joint effects using a developing targeting process at the heart of our operational design to apply a range of means both against our adversaries and the people amongst whom we operate;¹²
- the generation of multi-dimensional manoeuvre, on land, in the air,¹³ in time, and in the virtual domain – improving our capacity to deliver offensive action in support of information and cyber operations;¹⁴
- the decisive application of integrated combat power at the point of decision; and
- the capacity to manage consequences, thereby shaping and managing the battlespace to achieve success.¹⁵

At the same time, we must mitigate our weaknesses:

- our lack of mass, mitigated through our alliances and the use of proxy indigenous forces (where achievable). Concentration of physical and cognitive force at the decisive point, however, is as important as economy of effort elsewhere;
- our initial lack of understanding, mitigated by rapid deployment of joint strategic intelligence enablers and augmented by our capacity to integrate ISTAR for tactical 'find';
- our ability — in complex terrain — to find and engage the enemy with kinetic and non-kinetic effects, mitigated by maintaining HUMINT capability and manned reconnaissance, as well as maintaining a role for suppression where appropriate;
- our need to protect the force, mitigated by professional competence in force protection TTPs, equipment, deception and concealment. Land forces will need to become more used to breaking cover only when required, with headquarters developing the means to deliver a more staccato application of force at times and places of our choosing; and
- our lack of sustainability in the field, which we mitigate by training to improve our capacity to operate in austere field conditions, away from tactical basing, and our use of commercial partnering to deliver contractor solutions.

Innovation requires imagination to explore the possibilities and potential to change and a willingness to do so. This in itself requires an organisational culture that encourages the upward flow of ideas and perceptions, as well as direction from above.

For the British Army, the situation has fundamentally changed and we must change with it if we wish to remain relevant in an uncertain world. While the fundamental nature of war remains unchanging (for now, at least), its character could evolve in any number of directions. Constrained by resources, the UK is likely to remain keen to lead the European element of NATO in its capacity to deploy and conduct even the most complex of operations. But it cannot do this with limited mass and a declining technological edge. Instead, it should seek the synergies that arise from well-crafted employment of joint capabilities in an agile and scaleable force package that is targeted with an appropriate degree of understanding.

The role of land forces within this package is vital to its success. Our lack of mass will need to be resolved through expertise in crafting highly effective shaping operations — blending lethal and non-lethal capabilities for precise application where required — and committing combat force elements to exploit (rather than decide) the situation; in short, combined arms effect. This places renewed emphasis on the importance of higher headquarters in shaping the situation, freeing lower headquarters to concentrate on the tactical battle and, at the same time, allocating ISTAR, fires and information operations capabilities to the point of need. While this is complex, every effort should be made to create simple plans with messaging at their heart.

Dispersion, concealment and good fieldcraft will become the norm, with tactical basing likely to persist only during the latter stages of stabilisation operations. Force elements must therefore become more comfortable with operational security and deception, concealing their whereabouts, communications and intentions, and committing from dispersed locations only when necessary to achieve decisive effect. Training for unpredictability must become the norm, and officers and soldiers at all levels must be comfortable with this. Land forces need to be adaptable, versatile and scaleable.

We have an opportunity to shape the way we operationalise the structures we have been given under A2020. It is now time to reset for contingency in a manner designed to win the wars of the future, taking account of our experiences in the wars of today without slavish adherence to these. To achieve the best that we can requires our officers and soldiers to assist in conceptual development; a bottom-up learning culture should be encouraged, and those with the best ideas rewarded for their efforts. Journals such as this remain an excellent receptacle for debate. ■

THE AUTHOR

Colonel Law's appointment is equivalent to Director DARA (now DFLW) in the Australian Army, although the views expressed within this article are largely his own and do not reflect official British Army force modernisation objectives. He is, however, the lead author of the UK's Future Land Operating Concept Development Agenda, a substantial work that sets the context for the British Army's Land Environment Capability Management Strategy. An artillery officer by trade, Colonel Law has served for 20 years and has seen active service in the Balkans, Northern Ireland, Iraq and Afghanistan. Most recently, he commanded a close support artillery regiment in Helmand Province, acting as the Chief of Targeting and Joint Fires. His past service has also included two spells as a member of the Directing Staff at the British Staff College and time in the MOD's Operations Directorate. He recently led the British Army delegation to Army-to-Army Staff Talks in Canberra and has established more effective links between the British and Australian force development organisations

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- 5 Source: The National Security Strategy.
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- 7 Understanding is a command issue and not a function of ISTAR. It involves a combination of cultural and situational awareness, and requires officers with an inquisitive nature — encouraged and rewarded for their attention to detail in learning the physical, human and historical geographies of the region to which they are to deploy.
- 8 Positive efforts to require — and potentially reward — the acquisition of language skills must be made as a matter of priority.
- 9 Fabius Maximus, 'Fabius the Delayer', earned his soubriquet in the 2nd Punic War when he adopted a series of delaying tactics against Hannibal's superior Carthaginian army. Although at first derided, Roman defeats — including that at Cannae — led to a broad adoption of his philosophy in avoiding the enemy's strength while playing for time and denying supplies as a means to cause widespread attrition.

- 10 A 2011 study by the Directorate of Force Development (equivalent to DARA) concluded that, excluding Op Banner, the mean duration of British interventions since World War II is 48 months, and the median 33. Since the end of the Cold War (1990), the mean duration has been 67 months, with the median 79.
- 11 While language skills are a weakness at present, and cultural awareness not a given, recent campaigns have demonstrated the importance of developing a high level of understanding prior to embarking on a campaign.
- 12 There is some work still to be done to embed messaging at the heart of our decision-making, and cultural, organisational and doctrinal changes may be required. The Directorate of Force Development proposes experimental work to determine whether a new estimate process with the 'message' at its heart will simplify operational planning and provide a more relevant approach for the future.
- 13 The exact degree of air mechanisation and air manoeuvre available to land forces will be dictated in training by limited availability of airframes, but there is a requirement to maintain a baseline understanding of air mechanised operations with which land forces have become familiar on Operation Herrick. How this is achieved is an issue for the UK's Directorate of Training (Army) and its Joint Helicopter Command.
- 14 Noting that more work needs to be done in institutionalising the latter into the land environment beyond specialist domains.
- 15 This may require formalisation of the consequence management role in formation and unit headquarters.

CAPABILITY

Plan Beersheba: The Combined Arms Imperative behind the Reorganisation of the Army

Colonel Craig Bickell

ABSTRACT

This article examines the combined arms imperative driving Plan Beersheba. It begins by describing the major organisational changes occurring in the regular manoeuvre formations of Forces Command as background to discussion of the combined arms imperative behind these organisational changes. Evidence of this imperative is supported by historical analysis of combined arms warfare during the twentieth century and the Australian Army's experience of employing tanks in Vietnam. The more recent experience of our allies in operations in the Middle East, our experience in mission-specific and foundation warfighting collective training exercises and lessons from the Restructuring the Army trials of 1998–99 will add a more modern edge to this analysis.

The organisation which assures unity of combatants should be better throughout and more rational ... soldiers no matter how well drilled, who are assembled haphazardly into companies and battalions will never have, never have had, that entire unity which is borne of mutual acquaintanceship.

Colonel Ardant du Picq

Introduction

Had Colonel Ardant du Picq been given the opportunity to observe the Australian Army's traditional methods of temporarily task-organising into battlegroups for combined arms training activities he may well have criticised it as 'haphazard'. For Exercise Talisman Sabre (Hamel) in late July 2013, an armoured cavalry regiment (ACR), a task-organised battlegroup formed around the 1st Armoured Regiment with attachments from other mechanised units of the Darwin-based 1st Brigade, was attached to the 3rd Brigade. Exercise Hamel has been conducted every year since 2010 and these exercises, along with the respective brigades' annual Combined Arms Training Activity (CATA) which pre-dates Exercise Hamel, have provided the manoeuvre brigades of the Australian Army the opportunity to collectively train in combined arms. Prior to each Hamel and CATA, the armoured and mechanised units of the 1st Brigade are temporarily task-organised for these training activities, often detached from the 1st Brigade to the 3rd Brigade, and then embark on a lengthy and expensive transit to and from training areas in central Queensland. Here they perform some hasty re-familiarisation between tank, infantry and artillery and their supporting arms and services, conduct the training activity and, on its conclusion, make the lengthy trek to return to their garrison locations. Having observed this training model, while acknowledging that its soldiers were individually well trained, du Picq would probably conclude that the Australian Army's combined arms battlegroups and brigades (when formed) have never had and could never have that entire unity which he regarded as born of 'mutual acquaintanceship'. This is because, until Plan Beersheba, the Australian Army's organisation and the temporary nature of its approach to combining arms has precluded 'mutual acquaintanceship' and thus constrained its combined arms capability. Now, for the first time, instead of reorganising into its parent unit organisations, the 1st ACR will retain as far as possible its Exercise Hamel ACR organisation and prepare to transition to its new Plan Beersheba establishment in January 2014.¹ This new structure will see tanks, infantry and artillery permanently organised in each Multirole Combat Brigade (MCB).

This article will examine the combined arms imperative underpinning and driving the most significant reorganisation of the Army in decades. It will begin by describing the major organisational changes occurring in the regular manoeuvre formations of Forces Command before outlining the combined arms imperative driving these organisational changes. The discussion will focus on the argument that the organisational changes envisaged under Plan Beersheba reflect not only the professional judgements of Army's senior leadership and thinkers, but also draw on lessons from combined arms warfare during the twentieth century and the Australian Army's experience of employing tanks in Vietnam. More recent experience will also be examined, specifically that of our allies in operations in the Middle East, our experience in mission-specific and foundation warfighting collective training exercises and lessons from the Restructuring the Army trial (RTA) conducted in 1998–99.

Plan Beersheba

The 2013 Defence White Paper reaffirmed the government's commitment to Army's reorganisation under Plan Beersheba. Plan Beersheba will reorganise the Australian Army from the three specialised brigades into three 'like' MCBs based in Darwin, Townsville and Brisbane that will have fundamentally common structures containing all elements of the combined arms team.² Each brigade will comprise two standard infantry battalions (SIBs) together with an ACR that includes a tank squadron, an artillery regiment, combat signals regiment (CSR), combat engineer regiment (CER), and combat service support battalion (CSSB).³ The structure of each like brigade is illustrated in Figure 1:

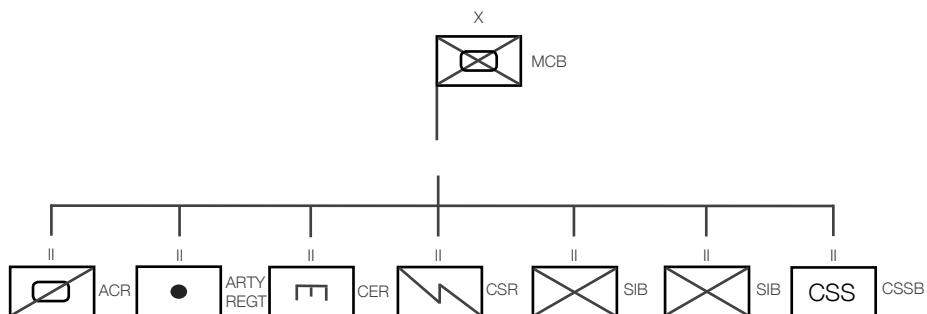


Figure 1: Organisation of the MCB

The most significant change will involve reorganising the tanks and APCs currently centralised in the armoured, cavalry and mechanised units of the Darwin and Adelaide-based 1st Brigade into ACRs based in each brigade's location. The structure of each ACR is illustrated in Figure 2:

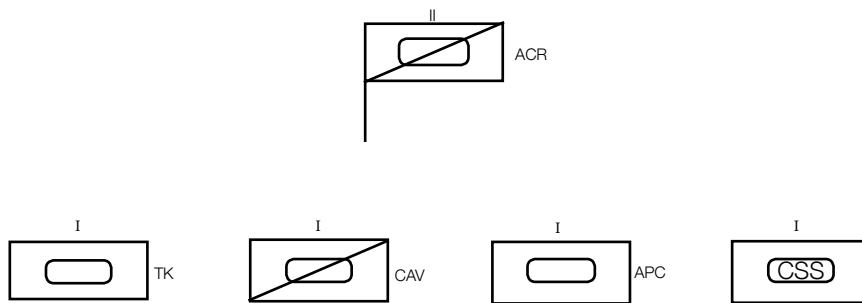


Figure 2: Organisation of the ACR

In launching Plan Beersheba in December 2011, the Minister for Defence pointed to the need to integrate skills, a translation of 'combined arms' more easily understood by a public unfamiliar with the original meaning:

What we've learned from that experience is that Army is better placed if its skills are integrated. So we're moving to three Brigades which will comprise and contain all of Army's key skills – armour, infantry, communications, logistics and the like. This will enable flexibility – speedy response – but also make Army more efficient, and more effective.⁴

At the same conference the Chief of Army (CA), Lieutenant General Morrison, elaborated on the Minister's explanation:

We need to have forces that are going to operate in barracks together, so that they can train together, as much as we can and clearly we will remain in Darwin and we'll remain in Townsville, we'll remain in Brisbane, we'll remain in the various locations that Army occupies now in Australia. But we need to group assets together in a way that enables them to train as they would fight or operate at short notice. Without going into the specifics, what we will try and do is make our Brigades more like each other.⁵

These statements reveal the combined arms rationale behind Plan Beersheba.

So what does the term 'combined arms' actually mean? While a definition of combined arms has been lost from Australian doctrine,⁶ the pre-eminent historian of combined arms, Jonathan House, provides a concise explanation:

*... the combined arms concept is the basic idea that different combat arms and weapons systems must be used in concert to maximise the survival and combat effectiveness of the others. The strengths of one system must be used to compensate for the weaknesses of others.*⁷

Yet, in most explanations of the logic behind the Plan Beersheba reorganisation, the combined arms imperative driving the changes is in danger of losing its prominence. Most official statements and commentary refer to the benefits of generating forces for sustained operations that the reorganisation will bring. The Australian Army's website notes that the Army's manoeuvre brigades will 'contain all elements of the combined arms team' and refers to the need to 'provide the widest range of sustained and effective land forces possible to meet future strategic circumstances' and to 'generate optimal capability to conform to strategic guidance and meet the challenge of contemporary warfare. It incorporates lessons learned over a decade of continuous operations, and maximises capability through the application of Army's Force Generation Cycle.'⁸ In a 2012 speech the CA explained that:

*... for too long we maintained single capabilities within brigades with deleterious effects on our force generation and career planning cycles. This was inefficient and probably harmed retention as well ... The development of the standard multi-role brigade will enable Army to reach the objective set in the 2000 White Paper for us to be capable of providing a brigade for sustained operations within our primary operating environment. It also allows us to develop forces of a combat weight commensurate with the level of threat in the modern battlespace. The force generation implications of this are profound and will ensure that we meet our obligation to the Government, and the remainder of the ADF, to be able to undertake sustained joint operations both in the littoral approaches to Australia and throughout the immediate neighbourhood.*⁹

However media reporting which followed the official announcement of Plan Beersheba in December 2011 failed to explicitly report the combined arms imperative that drove the changes. *The Sydney Morning Herald*, for example, reported that 'the Australian Army will be radically re shaped to prepare it better for long campaigns such as the decade-long war in Afghanistan'.¹⁰

The combined arms imperative so critical to understanding the purpose and direction of Plan Beersheba and yet so neglected in media commentary forms the subject of the next section of this article.

The Combined Arms Imperative

For many years professional discourse within the Australian Army has identified the need for a combined arms capability. Few military professionals with an understanding of the ingredients of success in modern warfare would dispute the logic of a combined arms capability as the centrepiece of the Australian Army's foundation warfighting tasks, although bizarrely, this view is not prominent in Army's current doctrine.¹¹ In his historical analysis of developments in combined arms warfare over three centuries, Michael Evans concludes that:

*from Brietenfeld in 1631 to Baghdad in 2003, the ability to combine fire, protection and movement by different arms has been the key to success in close combat and represents an important measure of an army's professional effectiveness. In close combat, no single arm or weapons system can succeed alone: infantry must be teamed with tanks and both must be linked to artillery.*¹²

A case study of Australian combined arms assault operations in Vietnam between 1966 and 1971 demonstrates that a combination of infantry and armour remains vital to tactical success.¹³ Having examined more recent historical examples of combined arms cooperation in the assault, including Iraq, Alan Ryan concluded that 'for the foreseeable future, the Australian Army will be required to maintain and continue to develop a balanced and lethal combined arms capability if it is to be able to fulfil its mission of fighting and winning the land battle.'¹⁴

Lieutenant Colonel David Kilcullen's review of the discussion during the 2003 Infantry Corps Conference and of contemporary Israeli and British experiences in combat in the Middle East led him to the conclusion that 'Australian Army force elements must operate as combined arms teams'. Kilcullen recommended that the Army 'train and rehearse as we intend to fight in small, semi-autonomous combined arms teams', adding that 'the principles of battle grouping and task organisation to create combined arms teams need to be applied at a much lower tactical level in the future ... possibly at intra-platoon or even intra-section level.'¹⁵

Australian officers with combined arms experience have also identified the organisational impediments to a true combined arms capability inherent in the Australian Army. One practitioner argues compellingly that the 'organisation of our Brigades¹⁶ has resulted in our tanks and mechanised infantry having a habitual relationship, often at the expense of the remainder of our army, which has limited opportunity to train with, or experience the practical employment of tanks'.¹⁷ Kilcullen's deduction that the principles of battle grouping and task organisation to create combined arms teams need to be applied at a much lower tactical level in the future led him to the view that 'such an organisational shift may demand the creation of more modular structures that can be "sliced and diced" in different ways in order to enable rapid and flexible regrouping of forces for any given mission'.¹⁸ A balance needs to be struck however:

As the Israelis found in Jenin, the need for unit cohesion is the Achilles heel of the small fire team. When troops have not trained together, or are unused to rapid reorganisation, battle grouping at too low tactical level may simply damage unit cohesion and general morale. For these reasons there needs to be a focus on habitual training relationships.

Kilcullen concluded that the Australian Army needs to 'focus intellectual and professional military effort on mastering combined arms operations in urbanised and complex terrain'.¹⁹ Plan Beersheba incorporates such objectives but through reorganisation in order to facilitate mastery of combined arms tactics to a degree that our current organisation has inhibited.

Lessons from combined arms warfare in the twentieth century

The history of combined arms in the twentieth century is replete with evidence that points to the importance of effectively organising combined arms. Jonathan House concluded that 'to be effective the different arms and services must train together at all times, changing task organisation frequently.' The pre-Plan Beersheba Army suffered from another of House's observations from history: 'confusion and delay may occur until the additions adjust to their new command relationships and the gaining headquarters learns the capabilities, limitations and personalities of these attachments.' House argues that task organisation is more effective when it commences with a large combined arms formation, such as a brigade, and elements from it are selected to form a specific task force, rather than starting with a smaller unit and attaching elements to it. 'This ensures that all elements of the task force are accustomed to working together and have a common sense of identity that can overcome many misunderstandings.'²⁰ Plan Beersheba's

organisational changes implicitly acknowledge this lesson, its reorganisation allowing the 'ready' brigade commander to select tank, infantry, engineer and artillery elements from his or her brigade and task-organise them. At this point, the experience of shared combined arms training during the 'readying' phase will have provided the opportunity for these task force elements to have trained together and developed the common sense of identity so essential to effective combined arms.²¹ This will ensure that periods of confusion and delay caused by the attachment of armoured and mechanised elements from the mechanised 1st Brigade to the 3rd or 7th Brigades will be minimised in the Plan Beersheba Army.

An analysis of the Australian experience of the raising, training and disbanding of the 1st Armoured Division during the Second World War also supports the need for effective organisation of combined arms. The Australian 1st Armoured Division was formed for service in the Middle East and the defence of Australia during the Second World War. Uniquely in the Australian experience of armour, the division envisaged using tanks not in an infantry support role, but in operations independent of infantry. It was eventually disbanded without seeing combat, although several of its regiments fought in the South West Pacific Area. An important lesson from the 1st Armoured Division experience is that 'when units are equipped differently and trained separately, they cannot operate effectively together, even in controlled exercise situations'. As such, 'frequent intimate collective training between the Land 400 LVCS [Land Vehicle Combat System] and infantry battalions or embedding of these vehicles will be essential to the effective use of the system. This will result in higher required manning and maintenance liability due to the diffused force structure, but is essential to force effectiveness on operations.'²²

Lessons from Vietnam

The experience of the 1 RAR Battle Group's preparation for and operational service in Vietnam in 1965 warns against relying solely on pre-deployment training and ad hoc task-organised collective training for combined arms. The 1 RAR Battle Group that deployed to Vietnam in 1965 as part of the United States (US) 173rd Airborne Brigade had to be completely reorganised from its pentropic organisation.²³ Combined arms training was not prominent in its pre-deployment preparation and training. As a result, shortly after its arrival in theatre, the 1 RAR Battle Group faced a rapid learning curve on large-scale command, control and communications, artillery and close air support, armoured, armoured personnel carriers (APC) and infantry operations, rapid 'on the march' orders and helicopter resupply.²⁴

In 1973, at the end of almost eight years of unit and task force level experience in Vietnam, the Australian Army published Training Information Bulletin (TIB) Number 21 – The RAAC Regiment amending The Division in Battle Pamphlet #4 – Armour. The Royal Australian Armoured Corps (RAAC) was reorganised in doctrine from separate armoured, cavalry, APC and anti-tank regiments into RAAC regiments. Within a divisional structure, the role of the RAAC was to provide support for the infantry, to operate in the mobile role whether supported by, or in support of, other arms, and to provide long-range anti-tank defence. The publication acknowledged that the tank's principal task in the South-East Asian environment was to provide intimate close support for infantry. The Army's experience demonstrated that five types of sub-unit were required within a RAAC regiment: cavalry, tank, armoured personnel carrier (APC), anti-tank (for limited war only) and forward delivery (or combat service support in contemporary terminology).

A comparison between this structure and the ACR depicted in Figure 2 shows the similarities, with only an anti-tank sub-unit absent from the Plan Beersheba ACR structure. TIB 21 stated that, during counter-insurgency operations when the armoured squadrons are collocated with the task force, it would be normal to task-organise the three squadrons as an RAAC Regiment. It identified the advantages of this organisation as: the availability of one senior experienced armour advisor to the task force commander instead of three squadron commanders; better allocation of armoured resources; centralised and simplified administration and management of logistic resources; and the flexibility to deploy independent squadrons as necessary. This was essentially the organisation that Army acknowledged as optimal for operations involving armour in South-East Asia. Due to the comparative costs of having tanks in separate geographic localities, the support requirements of the Centurion and a focus away from counterinsurgency to conventional operations, the structure was only partially adopted. While the 2nd Cavalry Regiment from the Holsworthy-based 1st Task Force and the 4th Cavalry Regiment of the 6th Task Force in Enoggera were reorganised with A Squadron Reconnaissance and B Squadron APC, the Centurion tanks remained centralised with the 1st Armoured Regiment in Puckapunyal and C Squadron's tanks were never attached to the cavalry regiments. The RAAC regiment concept was overtaken by TIB 28, The Infantry Division, in 1975, and the Army returned to focusing on conventional operations and grouping separate tanks, APC and reconnaissance regiments.²⁵

Lessons from allies

A combined arms imperative was the impetus for the US Army's reorganisation into permanent combined arms battalions and brigades. In the late 1980s the US Army experimented by organising three combined arms manoeuvre battalions (CAMB). This organisational structure had as its objective 'organising battalions to train as they will fight'. The intended benefits of this reorganisation were to improve leaders' proficiency in integrating tanks and mechanised infantry, facilitate task organisation and sustainment and capitalise on the effects of constant association. The reorganisation was also expected to reap long-term professional development benefits by exposing leaders to combined arms.²⁶ The logic driving the US Army's CAMB reorganisation saw greater benefit from permanently organising as combined arms than continuing to live as 'pure' mechanised infantry and tank units that only cross-attach and task-organise occasionally.²⁷ One of its goals was to strengthen armoured-infantry teamwork by enabling units to live and work together. The US experience also addressed the counter-argument to permanent reorganisation. US proponents of the CAMB highlighted the inefficiencies created by such provisional task-organisation including the creation of additional and unfamiliar administrative, technical and governance requirements. Institutionalising combined arms through the CAMB reorganisation removed this problem.²⁸ Following this experiment the CAMB model was implemented during the 2004 transformation of the US Army.²⁹ Combined arms battalions and brigade combat teams are now the main organisational structures of the US Army and point to the advantages of permanently organising combined arms at brigade level. While the Plan Beersheba reorganisation is different to that of the US Army at battalion and brigade level, it is driven by the same valid combined arms imperative.

Lessons from collective training activities

Lessons from mission-specific pre-deployment training also support the argument for permanently task-organising for combined arms. A junior non-commissioned officer who served with Security Detachment (SECDET) III in Iraq in 2004–05 noted in an interview that an increased level of interoperability between all force elements must be achieved prior to deployment: 'Having opportunities to work with the military police, cavalry personnel and their vehicles, and other elements are essential to minimise interoperability issues.' He suggested that the Army 'shouldn't wait until [units are] deployed to discover that there aren't common TTP or SOP.'³⁰ An ASLAV crewman from the Afghanistan-bound Reconstruction Task Force (RTF) 2 in 2007 recalled that the first time he experienced combined arms training was during the Mission Rehearsal Exercise (MRE). While he considered

that his unit was proficient by the end of training, he commented that, ideally, the unit should have had more regular exposure to this training beforehand.³¹ While SECDET and RTF were unique, highly task-organised teams created for very narrowly defined missions, and the Army's future combined arms must be kept more broad and generic than these examples, they nevertheless demonstrate the existing combined arms deficiencies within the Australian Army.

In post-deployment debriefings a small group of artillery officers who had re-roled as infantry and deployed on Operation ANODE in 2007 also argued the importance of conducting combined arms training as a regular activity. They believed that it was important for all force elements to develop teamwork and awareness of one another's capabilities in order to ensure that they worked together effectively while on operations. All stated that they had undertaken very little combined arms training outside mission-specific training (MST) and Combat Training Centre MREs. They suggested that battle grouping should become a regular feature of Army's business — they clearly saw some value in assembling regular battlegroups in barracks as well as on operations. The officers interviewed had been in their unit for at least two years and could not remember ever having undertaken any form of combined arms training.³² These contemporary observations on the need for 'mutual acquaintanceship' closely mirror those of Colonel Ardant du Picq whose comments were reflective of nineteenth-century reality.

One clear advantage of the Plan Beersheba reorganisation is the increased flexibility enjoyed by the brigade commander and an obvious boost in resourcing. Previously, when the 3rd or 7th Brigade wanted to conduct combined arms training with the tanks or APCs of the 1st Brigade, it would require HQ FORCOMD involvement to facilitate the arrangement. Under Plan Beersheba, when the 'readying' or 'ready' MCB wants to conduct combined arms training, the tank (under one model being considered), APC or cavalry sub-unit is readily available in the brigade's collocated and integral ACR. Should this model eventually be adopted there would be a significant reduction in the enormous costs associated with the transportation of tanks to eastern Queensland.³³

Lessons from previous trials

Lessons from the Restructuring the Army for the 21st Century (RTA/A21) trial include a number that are relevant to Plan Beersheba. In a brief to the Minister in May 2000, the trials director, then Colonel Justin Kelly, explained one of the main findings of the trial:

*Army 21 sought to achieve combined arms effects by creating units which contained small numbers of the principal arms – tanks, artillery, infantry and engineers. What we found was that these permanent groupings offered no advantages over temporary groupings created for a specific task and were in fact less flexible. The embedded units were also difficult to train and administer and undermined the culture of excellence that has traditionally given us the edge at the tactical level. On the whole, the A21 approach to combined arms proved to be a more expensive way to achieve a lesser outcome. The trial reinforced that the brigade level was the most efficient and effective means of generating combined arms effects because of its command and logistics capabilities. We decided that embedding should occur at that level rather than at the unit or sub-unit level [author's emphasis].*¹³⁴

The RTA trial confirmed what many RAAC officers had deduced from professional experience and had warned against as the trial approached: that embedding a troop of tanks at sub unit level in a reconnaissance squadron was too low a level of combined arms integration.¹³⁵ Disadvantages included the loss of flexibility and ability to mass combat power, the inability to concentrate fire, the constraints imposed by dissimilar tracked and wheeled vehicle capabilities, and the difficulty in supporting and sustaining the embedded tanks in geographically dispersed locations. One experienced tank commander concluded that 'a Tank Squadron offers greater flexibility and impact than the single discrete troop embedded within the reconnaissance squadron.'¹³⁶ Another argued that 'the issue is not whether we should embed or group but rather at what level we should embed.'¹³⁷ The trial 'confirmed that artillery, tanks and infantry continue to be at the core of the combined arms battle ... without artillery, company attacks against adversary platoons invariably failed' and 'the presence of a single troop of three tanks in an infantry company attack typically reduced casualties by two-thirds.'¹³⁸

Plan Beersheba and the RTA trial both aimed to achieve an improved combined arms effect. The RTA trial method was an organisational restructure of units to embed armour and artillery at unit level. The Plan Beersheba method is, among other things, an organisational restructure to ensure that all arms, including tanks, are permanently represented within each brigade. This method is consistent with the conclusion from the RTA trial that embedding combined arms effects should occur at brigade level. RAAC officers should be encouraged that, on this occasion, Army's method reflects the lessons learned from previous trials that embedded tanks and from the advice offered by professional practitioners. Interestingly, the Army had not acted on that key finding until Plan Beersheba, possibly reflecting the demands of sustained operations from late 1999 to the present.

Acknowledging the challenges and risks

As the RTA trial director concluded in 2000, 'achieving the right balance between breadth, depth and resources is the core challenge of Army development'.³⁹ This observation remains true for Plan Beersheba. There are many risks and obstacles associated with the disaggregation of armoured units into mixed RAAC groupings and these risks and obstacles apparently prevented the realisation of the reorganised 1973 RAAC Regiments that the Army envisaged following its Vietnam experience. One significant concern remains with the model that sees the disaggregation of tanks into three geographic locations. This concern is that, having a tank squadron in each geographic location risks never actually seeing a full squadron fielded due to maintenance and serviceability constraints. It is a regimental effort for the 1st Armoured Regiment to put a tank squadron in the field. Similarly, there is a risk of degradation of core skills such as gunnery as a consequence of adopting the model that sees the disaggregation of tanks. In order to ensure that Plan Beersheba does not suffer the same fate as the post-Vietnam RAAC regiment, these risks and obstacles need to be adequately addressed through simulation systems, heavy tank transporters, recovery variants and through life support contract arrangements. Maintaining main battle tanks in one location and ASLAVs in two currently presents a significant challenge and, under one Plan Beersheba model that will be considered, Army will need to support and sustain these platforms across three or four locations.⁴⁰ Army's senior leadership is well aware of these risks and obstacles and Army's planners are working hard to address them as implementation plans and models are drafted. Nothing has yet been identified however, that trumps the combined arms imperative that is driving the need for change.

Conclusion

In 1993, having analysed the historical imperative for the combined arms team and examined the structure of the US Armoured Cavalry Regiment, a young Australian RAAC officer wrote that the Australian Army was good at 'espousing the benefits of all arms training at RMC and JSC and on formation level exercises, but not in the day-to-day conduct of training.'⁴¹ Perhaps constrained by his rank and experience he did not then advocate the formation of armoured cavalry regiments in the Australian Army but saw the 1st Brigade as providing the basis for a number of all-arms teams with the capability and flexibility of an armoured cavalry unit. Plan Beersheba takes the well-founded and prescient observations of this young officer beyond the 1st Brigade in which he served and into all the regular manoeuvre brigades of the Australian Army. While no doubt there are efficiencies

and advantages in sustaining operations, the combined arms imperative is the pre-eminent rationale for Plan Beersheba. This pre eminence reflects the professional judgement of Army's senior leadership and thinkers, and draws on lessons identified in an historical analysis of combined arms warfare during the twentieth century. Such lessons include those from the Australian Army's experience of employing tanks in Vietnam, the experience of our allies in recent operations in the Middle East, our experience in collective training exercises and lessons from RTA/A21 conducted in 1998–99. While conceptualising Plan Beersheba has brought its own challenges, these will be overshadowed by the challenges inherent in implementing the reorganisation over the next ten years. After that, perhaps the next challenge and the focus of contemporary experimentation may lie in generating 'mutual acquaintanceship' between the MCBs and the supporting arms and services that currently reside in the 6th, 16th and 17th Brigades. ■

THE AUTHOR

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ENDNOTES

- 1 This may not be the final unit name of the Darwin (or Adelaide)-based ACR, as that decision will be made by CA on the advice of the RAAC Head of Corps.
- 2 Defence White Paper 2013, p. 86 and at: <http://www.army.gov.au/Our-future/Plan-BEERSHEBA>
- 3 J. Kerr, 'Beersheba Plans for when the Troops come home', *The Weekend Australian*, 27 October 2012.
- 4 Minister for Defence, Transcript of Press Conference of 12 December 2011 announcing Plan Beersheba at: <http://www.minister.defence.gov.au/2011/12/13/minister-for-defence-press-conference/>
- 5 Ibid.
- 6 In LWD 3-0 Operations and LWD 3-0-3 Land Tactics combined arms teams are defined as 'a case-by-case mix of combat, combat support, CSS and command support FEs, selected on the basis of a specific combination of task, terrain and threat.' The concept of combined arms itself is not explained.
- 7 J. House, *Combined Arms warfare in the Twentieth Century*, University Press of Kansas, 2001, p. 4.
- 8 Ibid., p. 282.
- 9 Chief of Army, Lieutenant General David Morrison, AO, address to the Royal Australian Navy Maritime Conference, Sydney, 31 January 2012.
- 10 D. Oakes, 'Army Shapes up for the Long Haul', *The Sydney Morning Herald*, 13 December 2011.
- 11 For one perspective see Lieutenant Colonel M. Krause, 'Lest we Forget – Combined Arms Assault in Complex Terrain', *Australian Army Journal*, Vol. I, No. 1, pp. 41–46.
- 12 M. Evans, 'General Monash's Orchestra – Reaffirming Combined Arms Warfare' in Michael Evans and Alan Ryan (eds), *From Brietenfeld to Baghdad – Perspectives on Combined Arms Warfare*, Land Warfare Studies Centre, Working Paper No. 122, July 2003.
- 13 R. Hall and A. Ross, 'Lessons from Vietnam – Combined Arms Assault against Prepared Defences', in Evans and Ryan (eds), *From Brietenfeld to Baghdad – Perspectives on Combined Arms Warfare*.
- 14 A. Ryan, 'Combined Arms Cooperation in the Assault – Historical and Contemporary Perspectives' in Evans and Ryan (eds), *From Brietenfeld to Baghdad – Perspectives on Combined Arms Warfare*, p. 58.
- 15 Lieutenant Colonel David Kilcullen, 'The Essential debate – Combined Arms and the Close Battle in Complex Terrain', *Australian Army Journal*, Vol. I, No. 2, pp. 77–78.

- 16 Since 1980 the Australian Army had been organised on distinctive specialised brigades cantered around mobile/mechanised capabilities, light, air-portable capabilities, and standard infantry/motorised capabilities. Lieutenant General Dunstan, then Chief of the General Staff, proposed the following specialisations for the task forces of the 1st Division: 1st Task Force was to focus on mobile operations and prepare for tasks in conjunction with the 1st Armoured Regiment; 3rd Task Force was to be reorganised onto light scales, and it was to concentrate its training on air-portable and air-mobile operations as well as warfare in tropical areas; 6th Task Force was to remain a standard infantry task force, focusing its training on conventional operations in open country. Dunstan's logic was that, in an organisation as small as the ARA, it was a liability to have three task forces with identical organisations and roles, as this limited the Army's ability to develop the full range of skills it might require for expansion. See Dr Albert Palazzo, *The Australian Army – A History of its Organisation 1901 2001*, Oxford University Press, Melbourne, 2001, p. 328.
- 17 Captain M. Shea, 'Infantry/tank cooperation in complex terrain', *Australian Infantry Magazine: Magazine of the Royal Australian Infantry Corps*, October 2002, pp. 48–51.
- 18 Kilcullen, 'The Essential debate', p. 79.
- 19 Ibid. p. 80.
- 20 House, *Combined Arms warfare in the Twentieth Century*, p. 282.
- 21 Forces Command generates foundation warfighting capabilities using a force generation cycle in which a given brigade will be in the 'ready' phase from which forces are drawn for current operations and contingencies, another brigade will be in the 'readying' phase or conducting collective training in foundation warfighting to prepare for current or contingency operations, and a further brigade will be in the 'reset' phase in which the focus will be on individual training and modernisation.
- 22 Lieutenant Zach Lambert, 'The Birth, Life and Death of the 1st Australian Armoured Division', *Australian Army Journal*, Vol. IX, No. 95, p. 100.
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CONCEPTS

Shaping the Future Battlespace: Offensive Cyber Warfare Tools for the Planner¹

Major Nicholas Rose

ABSTRACT

This article is written as an element of future war analysis conducted at the US Marine Corps School of Advanced Warfighting and uses primarily US doctrine and concepts relating to cyberspace. Such concepts may not correlate specifically to those used by the Australian Defence Force (ADF) or Australian Army as open source US military perspectives on cyberspace consider both defensive and offensive aspects, while Australia generally provides only a defensive view. However this article aims to provide a baseline perspective on offensive cyberspace for all planners and commanders, largely drawn from US research, but with application for the conduct of future land and joint warfare across the globe.

Rarely has something been so important and so talked about with less clarity and less apparent understanding than this phenomenon. ²

General Hayden
Director US National Security Agency
and Commander US Cyber Command
speaking on cyber war development in 2011

Introduction

What does cyberspace offer strategists in the conduct of future war? This is a critical question that requires an equally critical answer. All too often planners and commanders become entangled with the tactical details of cyber — the ‘ones and zeros’ — without considering more enduring concepts for operational employment. Cyberspace also poses many legal and policy dilemmas for military commanders, particularly in relation to offensive employment. Such dilemmas in the context of land warfare may prevent full employment of all available capabilities by commanders and therefore risk the loss of tactical or operational advantage in war.

The characteristics of future cyberspace operations are likely to provide military planners with unique battlespace-shaping tools including cyber-reconnaissance, cyber-isolation and cyber-strike. If these tools are employed in conjunction with other warfighting functions, aligned with appropriate strategy and developed by planners and cyber specialists working together, the conduct of future campaigns will be significantly enhanced.

This article describes the unique characteristics of cyberspace operations that have been exploited in recent years and that have proven highly relevant to planners, including attribution, time, speed, risk, and precision. Examples cited in support of this discussion will highlight the emerging operational shaping tools of cyber-reconnaissance, isolation and strike, all of which have clear future application. Finally, planning considerations will be proposed for the employment of these tools at the strategic and operational levels of war.

Current understanding of cyberspace

The United States (US) government has emphasised the role of cyberspace as a domain of warfighting, highlighting the critical nature of cyberspace for military operations.³ US military doctrine defines cyberspace as:

*A global domain within the information environment consisting of the interdependent network of information technology infrastructures, including the Internet, telecommunications networks, computer systems, and embedded processors and controllers.*⁴

Threats

Cyber threats are presently categorised as those originating from non-nation state groups; those from nation states; and physical threats to networks.⁵ According to the US Director of National Intelligence, cyber threats broadly consist of cyber-espionage (accessing sensitive information) and cyber-attack (a non-kinetic offensive operation intended to create physical effects or to manipulate, disrupt or delete data).⁶

Conceptual

The conceptual understanding of cyberspace is currently progressing along two broad lines — defensive and offensive cyber. Defensive cyber is aimed at disrupting cyber attacks focused on gaining access to information and friendly systems and receives considerable attention. The employment of defensive cyber has been the impetus for establishing organisations such as US Cyber Command and the Australian Cyber Security Centre.⁷ Offensive cyber, while less developed, has two broad aims: response to cyber attacks and the conduct of proactive virtual activities to enable military operations.⁸

The US defines offensive cyber operations as:

*... the creation of various enabling and attack effects in cyberspace, to meet or support national and combatant commanders' objectives and to actively defend DOD or other information networks, as directed.*⁹

Based on this definition offensive cyber operations can be 'active defence' and/or 'enabling and attack effects'. 'Active defence' is already well developed given its close alignment to defensive cyber. The same cannot be said for 'enabling and attack effects' in offensive cyber. Details of this aspect of offensive cyber are closely guarded in terms of classification, sensitivity and authorisation for use.

Offensive cyber requires significant reconnaissance, resources and skilled personnel to craft weapons to exploit an enemy system's weaknesses. Yet enabling and attack effects could be extremely useful for military planners if suitable cyber tools were available.

Observations on recent cyber operations

Reconnaissance

In 2003 security forces around the world detected the theft of information from a range of targeted nations, allegedly by the Chinese, under the codenames of TITAN RAIN and NIGHT DRAGON.¹⁰ It was unclear at the time how the stolen information would be used and whether it had been stored for use at a later stage. What was clear, however, is that this was an unmistakable example of reconnaissance conducted in the realm of cyberspace.

The conduct of general reconnaissance is necessary to understand an adversary.¹¹ The conduct of cyber-reconnaissance is necessary to assess an adversary's network or system, the system's weaknesses, its defence mechanism and who is operating in the system. For the operational planner, knowing what is occurring inside the enemy's computer systems is a vital enabler that should be exploited.

The activities allegedly conducted by the Chinese and other nation states have been labelled 'advanced persistent threats' (APT) by security organisations.¹² APT describes high-end state-sponsored cyber attacks that are the product of many months or years of cyber-reconnaissance. Recent security analysis of attack trends suggests that these systems are designed to gain and maintain access to targeted systems to steal information and use that information for national objectives.¹³ One particular characteristic of these systems is the ability of organisations to maintain access to the targeted system so as to return at a later date to obtain additional data — and to do this while remaining undetected by the target.¹⁴ Such reconnaissance has usually involved a group or an individual gaining access to protected information. The application of cyber-reconnaissance in a military context therefore has great value in assessing the vulnerabilities in an adversary use of computers both during peace and in times of war.

The conduct of cyber-reconnaissance of Syrian networks, as a component of the 2007 Israeli Defense Forces (IDF) Operation Orchard (bombing of a suspected nuclear site), identified a number of exploitable weaknesses. Identification of

these weaknesses enabled the alleged employment by the IDF of a sophisticated computer code to control adversary air defence systems, deceiving radar operators as to the true air threat picture. The action enabled by this cyber-reconnaissance effectively neutralised the Syrian air defence, allowing the safe passage of IDF strike aircraft.¹⁵ The employment of deception and information alteration within the adversary system shaped Operation Orchard and provides an excellent example of successful cyber-reconnaissance.

The alleged activities of China and Israel illustrate the five characteristics of cyber-reconnaissance. The first characteristic is that the nature of cyber-reconnaissance is subtly different from traditional reconnaissance:

*... the nature of the reconnaissance is not simply to observe and report. The real purpose of cyberspace reconnaissance has a more scientific bent — to examine a logical structure and determine its flaws, either by observation or by experimentation.*¹⁶

Second, it is extremely difficult to determine who is conducting cyber-reconnaissance and therefore who is a potential adversary. Attribution of APT to nations such as China cannot be conclusively proven due to internet routing, employment of multiple servers around the globe and the absence of any official claim of responsibility.¹⁷ Third, accessing a target system through cyber-reconnaissance takes time to develop and gaining access requires specialised skill-sets. Fourth, cyber-reconnaissance can provide unique insight into an adversary that may be cheaper, less risky and unobtainable from other intelligence sources.

Using information gleaned through cyber-reconnaissance, however, is a double-edged sword; if you act on the information collected you may lose access to the systems you invested time and resources to infiltrate. The use of ULTRA communication intercepts during World War II represents one example of weighing the costs against the benefits of acting on information sourced during cyber-like reconnaissance.¹⁸ The Allied ability to read coded German communication during the war was of immense value to planners and commanders, but decisions had to be made on how best to employ that knowledge without compromising its source. ULTRA provided significant support to deception operations, detailed awareness of German orders of battle and intentions (resulting in accurate assessments of capabilities), and had a profound influence on Allied strategy. However that information was not always complete, as enemy actions demonstrated, necessitating supplementation by other forms of intelligence.¹⁹ Cyber-reconnaissance is likely to provide similar functions to future planners.

Fifth and finally, the constant and increasing use of cyber systems by militaries and communities provides more opportunities for information exploitation through the gathering of cyber intelligence that can shape and influence the conduct of operations.²⁰ Military planners of the future must consider the use of cyber-reconnaissance as a tool that will complement the shaping of a military operation.

Isolation

Three weeks prior to the Russian incursion into Georgia in August 2008 pro-Russian cyber-hackers allegedly overloaded the Georgian internet service providers, defaced Georgian government websites with anti-Georgian propaganda and conducted distributed denial of service attacks on government and media websites.²¹

Georgia's 'cyber' utilities were being isolated and targeted in preparation for what was to come as part of the Five Day War. At the commencement of Russian land operations in Georgia, hacking continued with the list of targets increasing to include financial, business, educational and western media outlets. Russian hackers reportedly isolated media and government communication sites in the specific areas in which military attacks were to take place.²² At the same time cyber attacks on infrastructure that would have caused injury or mass chaos in Georgia were restricted. The effect of these actions was to isolate both the Georgian government and people from internal and external communication.²³ By exploiting this isolation, the Russian government was able to significantly degrade the Georgian government's credibility with its people and the outside world.²⁴ Ultimately, Russian cyber operations assisted the Russian military to achieve its strategic goals in Georgia.

According to Hollis, the Five Day War represents the first case of cyber attack coordinated with other military operations.²⁵ Reviewing the conduct of cyber manoeuvres during this war provides useful insight into future applications.

The first step may comprise the isolation in cyberspace of a military objective or operating area as a preliminary to land operations. Such isolation can include the denial of official internet services, disruption of cyber systems in an adversary network, and the denial of internet communication to outside third parties. Cyber-isolation would be particularly useful during the decisive phases of an operation in which limiting or disrupting enemy communication networks domestically and internationally may contribute to achieving military objectives. A 'comparative inconvenience' (isolation) was created through the disruption of banking systems, mobile telephone communication and internet access in Georgia. In addition, such isolation could alter and even damage strategic alliances.

Given the interconnected nature of cyberspace, the electronic isolation of an entire nation or even a significant portion of a nation, could create second and third order effects in other nations drawing other unwanted combatants into the conflict.

Additional follow-on effects relating to cyber isolation may include the dissemination of cyber weapons outside the control of the owner, particularly given the pervasiveness of the internet, and lead to potentially undesired escalation. Identity obscuration of the cyber-attacker may also cause unintended intensification of the conflict.²⁶

Alternatively, the same isolation could fracture an alliance before combat operations commenced, the cyber attack acting as a useful shaping action for the adversary.

Second, narrative manipulation evident through the disruption of media communication can influence the international community's attitude to the conflict. Many media outlets use global hubs for dissemination of material through systems using nodes exploitable through the internet. Reliance on such communication systems, even satellites, is open to disruption and denial and could offer an opportunity for manipulation of the narrative of a conflict. Such manipulation could be swayed towards particular strategic messages that support the attainment of friendly or adversary goals. An example of this type of activity is the conduct of cyber actions during the conflict between Hezbollah and Israel from 2006. Both sides of the conflict conducted aggressive manipulation of social media sites, public geospatial applications (such as Google Earth) and websites to influence international and domestic opinion and attitudes.²⁷

Manipulation of the narrative surrounding a conflict can be effected through exploitation of social media, online content and available media websites. This is potentially a very powerful cyber-shaping activity involving the full range of information operations and cyber capabilities to weaken or disrupt social understanding of a conflict. Planners could then design directed messaging to local inhabitants without enemy command influence. This element is likely to develop as a trend in future conflict given the increasingly numerous personal digital devices connected to the internet.²⁸

Third, cyber-blockades could contribute to the disruption of the economic infrastructure of an objective area. Such blockades could be designed akin to naval blockades but focus on the neutralisation of adversary financial conduits across cyberspace, economic trade across the internet and denial of those services that use electronic systems. While this occurred for a short period of time during the Five Day War, it could be designed by planners to last for a longer period and be used in conjunction with physical blockades of land and sea entry points.

However such actions would require significant resources to be effective and would have many follow-on effects across the globe. Effects could include mistrust of global financial systems causing economic disruption outside the conflict zone, and retaliatory cyber-attacks against offenders.

To support cyber-blockades, physical attack on internet conduits could also be undertaken. There are currently a number of digital 'choke points' for the transfer of internet communication through undersea cable, still the dominant medium for internet traffic globally.²⁹ These digital choke points could become the focus of physical attacks or disruption by a determined adversary. Efforts to physically disrupt digital choke points have occurred as recently as early 2013. Egyptian authorities in March 2013 detained a number of saboteurs attempting to cut the undersea internet cable at Alexandria connecting North Africa–Asia to Europe.³⁰

Finally, in conjunction with cyber-reconnaissance, adversary cyber systems can be isolated to disrupt and corrupt the decision-making process. Degrading or modifying information that enemy decision-makers rely on can ultimately reduce the integrity of the systems and either impede operations or force the adversary to use much slower forms of command and control.

Preceded by and used in conjunction with cyber-reconnaissance, cyber-isolation, synchronised with other military operations, could be a powerful tool for future military planners. Likewise, the conduct of cyber-enabled strikes that cause physical damage offers much potential for future planners.

Strike

According to some analysts, the Stuxnet attack of 2010 was a 'game changer' in the realm of cyber operations. Stuxnet was a sophisticated computer virus allegedly created by either the US or Israel to attack Iranian nuclear facilities.³¹ Specifically the worm, discovered in June 2010, was designed to survey and then subvert very specific industrial controls relating to supervisory control and data acquisition (SCADA) systems that monitored industrial nuclear processes. A cyber-strike was conducted through a precise insertion of the virus.

The aim of Stuxnet was to destroy centrifuges used in Iran's nuclear program by disrupting the SCADA system that controls and monitors the delicate processes within uranium enrichment machines.³² Essentially, the virus was designed to cause centrifuges to spin out of control, causing damage that disrupted the enrichment of uranium.³³ Significantly with Stuxnet, the virus was designed as malware to achieve a real-world outcome — physical destruction. This physical destruction has never previously appeared as a feature of a computer virus attack.³⁴

The virus was also able to circumvent what is known as a closed network through its ability to spread via peripheral devices. A closed network in cyberspace terms is a system not usually connected to the internet and one that is often protected by various physical security measures such as personnel access controls, guards and physical barriers. Examples of closed networks include highly classified military networks such as those used by Australia, particularly relevant for military planners when considering adversary cyber systems.

The Stuxnet case study provides four learning points concerning the act of cyber-strike. First, a virus to be used in cyber-strike needs to be sophisticated and precise. The Stuxnet code was intricate and could selectively attack very specific industrial systems. A precise virus can only be developed through extensive cyber-reconnaissance of the target system prior to launching the attack. Precision viruses such as Stuxnet suggest to planners an ability to conduct targeted strikes against enemy facilities that may be more readily available in the future. Alternatively, planners could employ focused attacks against enemy command and control nodes or against other electronic systems that manage logistics, fuel or operations in support of other traditional military actions.

Second, Stuxnet was assessed as requiring significant time to design and build.³⁵ Lead-time in development is an important factor to consider in the use of cyber weapons, specifically in relation to knowledge of adversary computer and defence systems. Such knowledge comes not only from cyber-reconnaissance but also from traditional intelligence collection and analysis.

A third lesson is that a closed network is never really 'closed'. Stuxnet's ability to strike a closed network undermined a long-held assumption that closed networks were generally more secure than open ones connected to the internet. In effect Stuxnet, through its design and employment, was able to circumvent some of the physical security barriers put in place to protect the targeted systems. Stuxnet's designers exploited the fact that eventually a closed system has to be managed by humans and connected to a device (such as a laptop computer) that has most likely had contact with the internet. Despite security procedures in place, even highly classified military systems often exhibit such vulnerabilities and are therefore open to exploitation.³⁶ One reaction to viruses such as Stuxnet is to significantly restrict and secure the vulnerabilities they exploited, limiting future use.

The US military, however, continues to experiment with developing a means to replicate viruses such as Stuxnet that operate without physical connections to the closed system. The US Navy is reportedly developing airborne electronic warfare

systems that will be able to ‘fire’ malicious codes into closed adversary networks from up to 200 miles away.³⁷ In a similar fashion the US Army is reportedly experimenting with techniques to insert and extract data from sealed or wired networks from a stand-off distance. Such technology has been termed ‘electronic warfare-enabled cyber’ and attempts to transmit code via radio signals into targeted computer systems.³⁸ The potential for such weapon systems to be used in future conflict to build on the capabilities demonstrated by Stuxnet and with the capacity to enable stand-off disruption to enemy networks is significant. In effect, Stuxnet derivative future weapons are likely to negate specific modern physical defensive systems and security measures.

The final learning point observed in the Stuxnet case study focuses on the timing of cyber-strike. In most cases, cyber-strike weapons will be a ‘one-shot’ capability. Given that malicious code or viruses are developed based on the targeting of vulnerabilities in the system (either virtual or physical), once the weapon is employed, the same vulnerabilities will be realised and secured, probably preventing the cyber weapon’s future use. This contrasts with the employment of more traditional weapon systems that often retain their utility throughout a campaign.³⁹ Of course, if the cyber-strike is timed for specific effects, one strike may be all that is required. In the use of these weapons, timing in employment is everything. Weapons such as Stuxnet or similar capabilities as illustrated in Operation Orchard have a ‘silver bullet’ capability — limited in application, but highly devastating against the right target. Employment of a warfighting tool in this manner will require focused analysis of adversary reactions and high levels of synchronisation with other warfighting functions.

This brief analysis of recent case studies has provided strong indications that cyber-reconnaissance, cyber-isolation and cyber-strike will emerge as future shaping tools for planners.

Considerations for the planner in the use of future cyber tools

Cyber-reconnaissance

Deciding on whether to exploit the advantage gained through cyber-reconnaissance is a key consideration for military planners. Should the knowledge sourced through reconnaissance support the launching of a spectacular surprise attack, or a pre-emptive disruption of an opponent’s cyber system(s)? Or will the loss of access to the opponent’s system with the employment of countermeasures be too costly to future military plans? Military planners must decide if and when to strike and be

prepared to accept a potential loss in capability or access to the adversary cyber system. Such decisions should be based on strategic guidance that includes calculation of risk. Guidance that informs planners should determine whether an offensive or defensive strategy is required — each of these will have different implications for cyber warfare.

Strategic offense should rapidly gain surprise and overwhelm an adversary, but strategic defence may afford early warning through the provision of intelligence gained through analysing the effects of an adversary attack on friendly systems. In general terms, retaining the advantage generated by cyber-reconnaissance favours the strategic defence. A defensive strategy generally provides a decision-maker with the ability to detect an adversary's actions and respond accordingly, assuming that sufficient intelligence is available. Such a strategy is particularly useful during the preliminary stages of conflict. However the conduct of offensive cyber actions within a defensive strategy, encapsulated in the idea of a counter-attack, should be a key component of any strategic defensive strategy that employs cyberspace capabilities.

The use of other intelligence disciplines, maintenance of strict operational security and appropriate cyber and physical defensive systems will assist in determining when to employ cyber-reconnaissance. Assessing which option to select and whether a risk is worth taking based on cyber-reconnaissance effects is a basic cost benefit or intelligence loss-gain equation.

Cyber-isolation

Following adequate cyber-reconnaissance, isolation of an objective by planners may also be an operational goal. The decision to conduct cyber-isolation can be taken for tactical or strategic reasons. Tactically isolating an objective may involve the local disruption of internet access or specific denial of services to cyber systems for a short period of time. Planners could ask for specific effects, such as 'turning the lights off in a particular city at 0321 hours' and specialists could design cyber weapons to achieve such an effect. The actions of the adversary in response to the isolation can highlight other vulnerabilities that planners should anticipate and exploit.

At the strategic and operational level, isolation is likely to involve the strangling of an area, state or organisation for a longer period of time. Isolation could be focused on affecting the nature of a cyber system, but it is most likely that isolation will be part of a synchronised national power campaign which includes other traditional

warfighting functions, diplomatic activities, economic actions and particularly information capabilities. Conflicts involving graduated escalation of force to coerce an opponent could use cyber-isolation techniques such as cyber-blockades, denial of services, and narrative manipulation.

Cyber-isolation could also be used effectively to disrupt adversary alliances. Alliances can enhance the strength of a potential adversary, often creating multiple fronts of conflict. Cyber-isolation employed against one ally could dissuade it from participating in a future conflict or during the preliminary stages of war, thus reducing the number of fronts. This is particularly relevant when international or regional consensus is required to support a conflict or when a smaller adversary requires the assistance of a larger ally. Cyber-isolation could fracture an alliance by generating higher than anticipated costs to a partner through impact on communication, economic or physical infrastructures.

Isolation of an ally combined with deception actions through cyber could also prove a useful component in future campaigns. Cyber-isolation could achieve a level of surprise in terms of strategic attack timings and locations. In addition, the conduct of deception and, importantly, measuring deception effects — often observed through enemy command and control reactions — could be significantly enhanced with the use of synchronised cyber operations.

Cyber-strike

Cyber-strike should be employed sparingly given the time it takes to develop a virus that is precise, guided and sophisticated. In some cases the cost of developing and employing a cyber-strike weapon may not be worth the outlay of time and resources. In other cases cyber-reconnaissance may reveal that there are fewer vulnerabilities to exploit using cyber than planners anticipated. Adversary counter-action capabilities and intentions must also factor in any decision to employ cyber-strike weapons, as should potential follow-on effects.

Significant risk assessment is also required prior to cyber-strike employment, not unlike that for kinetic strike operations. Risk assessment is required to judge collateral damage, second and third order effects and likely adversary reactions. Cyber-strike can and should be employed to achieve initial offensive advantage to disrupt command, control and intelligence systems during the opening stages of an offensive, or to confuse and misdirect an opponent's reactions as part of a deception plan. An adversary's critical infrastructure could also be targeted using cyber-strike to disrupt essential services to civilians and deny supporting assets to militaries in conjunction with other military actions.

Planners and specialists

The employment of the three cyber-shaping tools in a military operation will provide an edge over potential adversaries. To maximise these effects, planners and cyber-specialists, both those designing and crafting the cyber weapons and their managers, need to maintain constant dialogue. This dialogue is vital to reach a shared understanding of the problem and likely solutions, and is best achieved through the presence of cyber specialists within planning teams and deployed headquarters. Guided by this shared understanding, cyber specialists can then provide optimum support to planners and ensure that they are in a position to leverage the most from what cyberspace can offer the warfighter.

Conclusion

As military forces across the globe wrestle with the impact of cyberspace and a vastly more digitally connected battlespace, planners of the future will require a sound understanding of cyberspace and what it can offer commanders to support military success. Success for planners at the operational level will involve the articulation and execution of operations and campaigns that achieve the goals and political objectives set for them. Current and future developments in cyberspace offer planners a number of tools to assist in the crafting of successful designs through shaping of the battlespace. The cyber-shaping tools described in this article provide a broad approach to maximising the unique characteristics of cyberspace. As future adversaries continue to explore more technical and digitally connected means, the demonstrated characteristics of cyberspace operations will provide military planners with unique battlespace-shaping tools, including cyber-reconnaissance, isolation and strike that can significantly enhance the future conduct of warfighting. ■

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ENDNOTES

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CULTURE

The Value of Generic Cultural Training

Major Matthew Carr

ABSTRACT

Military organisations struggle with defining culture, a problem exacerbated by the lack of agreement on when cultural training should occur and what it should consist of. In the Australian Army cultural training is typically delivered to personnel during operational force preparation. This paper argues that cultural skills need to be developed much earlier, preferable at points throughout a soldier's entire career. This paper uses the seemingly unrelated issues of mental health, insider threat and gender equality to argue for the relevance of ongoing generic cultural training. After outlining the Army's current cultural training process the paper explains how a tailored generic cultural training can overcome its existing shortfalls and become a viable training methodology - if placed early in both the soldier and officer training continuum. Generic cultural training can therefore address a number of key issues facing the army as well as enhancing the Army's ability to adapt across a broad spectrum of operations.

The more one is capable of experiencing new and different dimensions of human diversity, the more one learns of oneself. Such learning takes place when a person transcends the boundaries of ego, culture and thinking.¹

Peter S. Adler, 1975

Introduction

The Australian Army's experience in Iraq and Afghanistan has clearly shown that a lack of cultural understanding can have tactical and strategic effects. One tragic example occurred on 30 August 2012 when Australian soldiers were killed by a member of the Afghan National Army — a result of cultural insensitivity rather than direct enemy action.² Closer to home, inappropriate behaviour and sexual harassment incidents have seen the Army's organisational culture subjected to intense scrutiny.³ While these instances are significantly different — the former a tactical failure and the latter an internal organisational problem — they both share a common thread of cultural relevance. This raises the question of whether some form of generic cultural training could provide a mechanism for addressing both tactical and strategic objectives.

Army has both the means and the opportunity to improve the way it delivers its cultural training. Such an improvement would not only reduce the risk of cultural 'incidents' at both the tactical and strategic level, but also increase the capacity for its people to understand and deal with change. This article will argue that a more effective 'generic' cross-cultural package can be tailored to meet the needs unique to Army than that presented by the current cultural training regime. Such training, however, will need to be an element of the general soldier/officer training continuum as opposed to the mission-specific force preparation cycle where it currently resides.

There is no denying that cultural training is important to Army in both the operational and organisational environment. However this training can be significantly improved. This article will begin by examining Army's current cultural training practices and the strengths and weaknesses of this approach. Second, the ostensibly unrelated topics of insider threat, mental health and gender relationships will be explored. Common cultural links will be exposed that highlight the applicability of generic cultural training as a training concept. Finally, a recommended pathway forward will be proposed. For the purposes of this article, generic cultural training is defined as the process of enhancing personal self-awareness and interpersonal relationship skills

by using culture as a focal point of difference. Within this definition, cultural training becomes less about the specific culture of a region or ethnicity, and more about cultural effects on the individual.

Understanding Army's current cultural training

The Army's current delivery of cultural training is concentrated in the mission-specific force preparation phase. Force preparation is focused on preparing personnel (either as teams or individuals) for the specific operation for which they are deploying and typically lasts between one and three weeks. Prior to force preparation it is assumed that foundation military skills have already been delivered through the Army's generic training continuum. As there is no systematic cultural training delivered within the generic training continuum, the cultural training delivered during force preparation often represents the first occasion on which personnel are exposed to this area and thus the training attempts to cover a broad range of cultural topics (for example, history, religion, language, dress and behaviour, attitudes and beliefs, greetings and lifestyle). As there is no identified unit within the ADF that is the repository of cultural expertise or training capacity, these topics are generally delivered by cultural experts sourced from outside the military organisation.

The cultural training package currently delivered by contractors is based on two methodologies drawn from the cultural training sector: Hofstede's 'Dimensions of Cultural Difference' (also mentioned in the Army's leadership pamphlet), and Cultural Intelligence (CQ).⁴ Hofstede's 'Dimensions of Cultural Difference' was developed following research involving over 100,000 IBM employees from over 70 countries in the 1970s.⁵ Hofstede's dimensions comprise: individualism versus collectivism; power distance; uncertainty avoidance; masculinity versus femininity; and long-term versus short-term orientation. The strength of this framework lies in the depth of cross-country comparison that has been applied to it and, such is its appeal, that other cultural training experts such as Andy Molinsky have since emulated this dimensional approach.⁶ Understanding cultural dimensions assists personnel to map differences in behaviour and attitudes with other cultures across a basic 'like or unlike' comparison. Critically, however, Hofstede's research focuses on an international IT company (IBM) and thus does not appropriately represent attitudes and behaviours unique to the current Australian Army. For example, the dimension of power distance within the Army is significantly different to that of mainstream Australian society and may need stronger focus. Further, the application of these dimensions is time-sensitive. For example, the

dimension of masculinity versus femininity fails to acknowledge the considerable cultural shifts in terms of gender relationships that have occurred recently and which will be further discussed below.

The second methodology — cultural intelligence (CQ) — promotes the application of motivational and behavioural training to a knowledge-based curriculum. In recent years, CQ has received significant research attention for military application as it progresses from knowledge through to motivational and behavioural training.⁷ Using the CQ model presents two challenges for Army. First, effectively incorporating CQ into training is a complex and time-consuming process. Researchers note that cross-cultural skills cannot be developed overnight or in short pre-deployment training courses.⁸ Creating time for effective cultural training becomes problematic when competing with other priorities outlined in concepts such as the Army's Adaptive Campaigning plan.⁹ Cultural competence becomes just another topic under the human dimension chapter along with human terrain analysis; physical, psychological and nutrition components; complex decision-making and human networking. Incorporating these topics into training becomes difficult when soldiers are required to maintain a multitude of specialised warfighting skills in order to achieve effectiveness and survivability on operations. The reality of limited time and training resources has become a significant influence that would most likely preclude the delivery of CQ without a focused priority. Like Hofstede's framework, CQ also lacks concentrated attention to and understanding of Army's unique needs.

In an attempt to deliver a 'best-practice' cultural framework designed for military requirements, the Multinational Interoperability Council convened a concept development and experimentation working group into cross cultural-training. The result was an approach titled 'Cross Cultural Awareness and Competence (CCAC)'.¹⁰ CCAC is a combination of various approaches adopted by coalition forces including the United States (US), United Kingdom (UK), Germany, France, Canada and Australia. The framework is consistent with the Australian Army's Planning Guidance for Cultural Training in advocating the provision of generic cultural training followed by specific culture and language training.¹¹ Both the planning guidance and the CCAC, however, fail to provide any further detail concerning what to include within either the generic or specific training phases.

The Australian Army's Planning Guidance for Cultural Training, however, provides a working definition for cross-cultural training:

*The capacity for active study and understanding of human and cultural influences affecting all decision-making and actions in the operating environment, in order to optimise one's own decision superiority through empathy. These factors include: behavioural considerations and drivers; power and influence sources; government, political and social grouping structures; tribal/ethnic dispositions; and spiritual, economic and geo-social factors.*¹²

While this definition provides scope to allow Army to configure the various dimensions of culture in the operating environment, it fails to acknowledge two important considerations. The first of these is the influence of one's own culture on the behavioural and decision-making process. Anthropologists and linguists alike agree that cultural influences act more as a 'lens' that the observer uses to view the world rather than the behaviour of foreigners.¹³ Agar explains that the understanding of culture is a translation of different practices that is relational to the audience experiencing the difference, a view that is supported by the linguist specialist Deutscher.¹⁴ In any delivery of cultural training in Army, establishing identity and self-awareness within soldiers and officers is an important first step to trying to explain the culture of another group of people. Second, the definition fails to acknowledge the numerous and competing cultures (each of them unique and complex) influencing the operating environment at any given time. The discourse surrounding 'human security' and international relations identifies that a growing factor in the complexity of humanitarian intervention is the requirement for holistic approaches to peace enforcement/keeping.¹⁵ This results in an increased level of involvement by the sovereign state, foreign state and NGO organisations each with competing motivations and operating processes, all of which are communicated through unique cultural practices. It is simply impractical to deliver cultural training that focuses on all of these various factions.

Lacking from both the Army's planning guidance and the CACC is detail regarding at which point in the soldier/officer training continuum the package should be delivered. This is important as literature critical of cultural training models questions the plausibility of short-term training consistent with the Army's force preparation courses which devote only a small portion of time to generic and specific cultural training.¹⁶ Abbe argues convincingly that training that expects personnel to absorb cultural understanding tools in a short time-frame and then apply them across a broad range of cross-cultural situations is unrealistic. The problem becomes compounded

given the physical and mental stress experienced while on operations. In order to be effective, any cultural training package will require long-term, gradual and progressive implementation outside the force preparation phase.¹⁷

If cultural training is to be effectively utilised by Army, it needs to be tailored to focus on an Australian Army audience. In addition, training outcomes must be synchronised with the challenges faced by the organisation. This will allow personnel to absorb these new skills into their personal attitudes and beliefs.

Tailoring cultural training to Army's needs

An effective cultural training package will need to focus on self-awareness as much as on the human differences faced on operations. This requirement for internal cultural reflection is identified in the ADF's cultural change policy:

*We cannot be entirely satisfied with all aspects of our current culture; there are parts that serve us poorly, limit our performance, hurt our people and damage our reputation.*¹⁸

Thus the ADF implicitly acknowledges that, as well as the requirement for cultural understanding within the operating environment, cultural self-awareness is also a necessity.

Cultural training models commonly regard interpersonal conflict as a measure of failure.¹⁹ In simple terms this means that if soldiers and officers are unable to strike a rapport with host nationals then they are culturally incompetent. Military personnel are regularly placed in highly stressful, conflict/disaster situations in which acceptance and/or popularity may not be possible. An effective generic cultural training package for Army will need to facilitate cross-cultural communication during deployment while also meeting the challenges of organisational change. In order to navigate these challenges and produce an effective cultural training capability within Army, a tailored training package needs to be developed that caters for these complexities and balances practical individual skills with desirable outcomes for the organisation.

In reality, all military culture encourages ethnocentric behaviour or a tendency to view one's own culture as superior.²⁰ The Army, as part of the Australian Defence Force (ADF) identifies itself as having a strong emphasis on team cohesion, loyalty to the service, competitiveness, pride and discipline/behavioural standards well above those of the civilian population.²¹ This view of military culture as distinct from mainstream society has been explained as a consequence of the enforcement

of hierarchy, inequality and conformity, and the production of the military's own distinct language practices or 'jargon'.²² Culturally defining the Army is complicated by the fact that the organisation is not homogenous. Instead, it consists of many unique and identifiable sub-cultures that may have a strong or weak influence on the individual depending on trade, rank, experience, education, gender or training. Cultural identity in the workplace is influenced by a number of different dimensions that are presented and reinforced through the behaviour and beliefs of its personnel. Group culture has been proven to become stronger and more tight-knit when the group is subject to suffering and hardship. Within the Army context this is often developed through collective military training and operational experiences.²³ While ethnocentricity can be beneficial to a military when developing team cohesion and loyalty, it can restrict people's ability to objectively view cultural behaviours and beliefs that are different to their own and can often lead to resentment.²⁴ Cultural training for the Army thus needs to be based on this reality and tailored to address particular ethnocentric challenges that are detrimental to the organisation.²⁵

Mental health

Army personnel unable to rationalise cultural behaviours or views inconsistent with their own often become more susceptible to adverse mental health conditions. While post-traumatic stress (PTS) has traditionally been associated with exposure to acute traumatic or stressful experiences, recent research has associated it with the chronic effects of ongoing exposure to stressful and violent situations experienced by personnel deployed to conflict zones.²⁶ Research focusing on the chronic effects of ongoing exposure to stressful and violent situations has termed this concept in the military context 'moral injury'.²⁷ Moral injury can otherwise be explained as an individual's inability to successfully assimilate morally challenging experiences into personal self-knowledge and world view.²⁸ A study of 'suffering injustice' promotes this concept of moral injury by presenting mental health as culturally influenced. The cultural link established in such studies is achieved by connecting an individual's sense of what is normal to what that individual is then exposed to on operations.²⁹ The social network and experiences that construct an individual's world view create a base-line of normalcy that is significantly challenged by the operational environment. Without the appropriate mental resilience preparation prior to the shock of deploying on operations, the leap between what is new and what was normal may be too great to allow some individuals to adjust.

While the Army and mainstream society can be identified as culturally different, they are also intricately linked. Army personnel are drawn from and live within Australian society. Practices and behaviour within the Army are judged and

shaped by public perception. When personnel are deployed overseas into conflict and disaster situations they are exposed to violence, death, stress and suffering that is inconsistent with Australian society's world view. Ongoing exposure to experiences outside the Australian cultural norm becomes a traumatic event that can be damaging to a soldier's mental health. In sum, when a soldier's world view is constructed within a particular culture (Australia) and is reinforced and strengthened through an ethnocentric organisation (Army), exposure to different cultural practices and extreme violent behaviour through operational deployment becomes a traumatic event. Given this rationale, the development of PTS/moral injury can be explained through the 'culture shock' that occurs when a soldier's mind has not been prepared to rationalise what is different.³⁰

Insider threat

Symptoms consistent with culture shock include frustration, anger and distrust of outsiders.³¹ When deployed overseas on operations such as a counterinsurgency, these 'outsiders' quickly come to include the local or foreign nationals who are working with or alongside Australian forces. Coalition forces in Afghanistan have been subjected to repeated incidents of insider attacks which have not been restricted to the adversary force. In certain reported cases coalition soldiers have been shot at by Afghan personnel who were attempting to regain 'face' after being offended.³² The breakdown in communication that can lead to insider threat has been described as the extreme outcome of cultural gaps or flashpoints — points at which two different cultures collide through conflicting beliefs or practices.³³ According to Hofstede's Dimensions of Cultural Differences, Australians prefer direct communication. To Australians there is nothing wrong with one individual addressing another directly when expressing dissatisfaction or trying to resolve conflict. In contrast, the Afghan method of communication is more passive and indirect, with 'face' and public image considered very important.³⁴ Negative public feedback by an Australian mentor can cause an Afghan to feel dishonour and shame perhaps even triggering a violent reaction at a later point as retribution. The violent venting of frustration often experienced by military personnel possibly generated through a lack of cultural understanding should not be regarded as a threat presented only by host nationals. In March 2012, a US sergeant killed 16 Afghan civilians after suffering a mental breakdown.³⁵ This incident highlights the fact that both mental health and insider threat challenges can occur within any military organisation, regardless of nationality.

Gender

Within the Army organisation, certain cultural attitudes can prevent personnel coping with change. The dimensions and characteristics of Army's culture create a distinct 'us versus them' competitive mentality that struggles to embrace difference particularly among people.³⁶ The dimensions of difference described by Vodjik include race, religion and sexuality and are apparent in certain incidents that have occurred recently within Army.³⁷ In 2011, women comprised 14.5% of the ADF, signalling gender as an obvious point of difference.³⁸ Understanding gender as a dimension of cultural difference acknowledges that women and other minority groups such as homosexuals, ethnic and religious minorities, struggle to gain acceptance in military organisations. A study by Belkin and Evans revealed that, within the US military, women have become the primary target of discrimination, allowing racial issues with African-American men to subside.³⁹ This observation raises an important question: why do females in the military find it harder to gain acceptance than men of ethnic or religious difference? Answering this question is beyond the scope of this paper, but it is worthy of further investigation in the development of Army's gender equality policy.

Gender as an influencing dimension of Army culture is established within individuals well before recruitment into the military. Gender-typing is a term that has been used to explain the societal process of conditioning people from childhood to accept and perform certain gender-specific roles.⁴⁰ The beliefs constructed during childhood of what are acceptable masculine and feminine professions reflected through boys' and girls' toys are reinforced within the ethnocentric confines of the military. The presentation of toy soldiers as gendered male is an example of such gender-typing. Indeed among most nationalities, soldiering is traditionally seen as a male-oriented role and this has been reinforced through gender-typing from an early age.

In 2012, the Minister for Defence announced the removal of existing gender restrictions from combat roles.⁴¹ While this announcement is representative of ongoing cultural change occurring within the ADF, and the removal of gender discrimination has certainly occurred at the policy level, the lead author of the review into women in the ADF stated on the document's release that: 'Our overall finding is that, despite progress over the last two decades, I am not confident that, in all the varied workplaces that comprise the ADF today, woman can and will flourish.'⁴² Eroding gender conditioning in society and in the Army will require concentrated and ongoing cultural awareness and behavioural training that will need to be implemented at the earliest stages of a military career.

A new pathway to Army's cultural training

The difference between generic cultural training and specific cultural training is significant. Molinsky explains this as the difference between knowing a culture and knowing *about* culture.⁴³ Studies into effective cross-cultural training for military organisations have continued to identify the distinction between the two.⁴⁴

The benefits of generic cultural training include its ability to cover certain psychological, anthropological and communication subjects that benefit both personnel and the organisation without being limited to any one particular culture.⁴⁵ Jane Boucher identifies five key barriers to communication: cultural biases, lack of awareness of cultural differences, language differences, ethnocentrism and inactive listening.⁴⁶ Of the five, two can be linked to specific cultural training (lack of awareness of cultural difference and language differences), while the remaining three are linked to generic cultural training. Generic cultural training is the primary mechanism for promoting self-awareness, interpersonal relationships and effective communication with broad applicability to a range of situations and environments.

The framework for the delivery of cultural training needs to address those requirements unique to the Army context. Beyond addressing those topics discussed in the first part of this article, Army's cultural training also needs to be sufficiently flexible to accommodate a complex working environment that includes multiple regions, various combatants and allies, and 'whole of government' task forces requiring interagency cooperation. In 1999, Australia led the United Nations (UN) mandated security force into East Timor (INTERFET) that ultimately involved a total of 22 nations.⁴⁷ The UN Department of Peacekeeping Operations reports that currently eight of the top 20 troop contributions made to UN peace operations are from African nations and five are from the Indian sub-continent.⁴⁸ The multinational character of UN operations drives the requirement for Army to focus on developing generic cross-cultural skills in its soldiers well in advance of any culture-specific or language training. In the future, the greatest challenge to Army will be its ability to interact, communicate and operate effectively with a broad spectrum of stakeholders rather than any one particular nationality.

With these factors in mind, what Army's current cultural training regime requires is not so much an overhaul as a targeted modification and a plan for its earlier inception (prior to the force preparation phase). Both the Hofstede and CQ methodologies promote a focus on generic cultural training as opposed to concentrating on a specific region's culture or language. However neither has been tailored to suit Army's specific requirements in terms of prioritising dimensions

to be covered. The employment of a dimensional concept entails deciding what components of Army culture are best suited to accurate self-analysis. Through this self-analysis a benchmark can be set to act as the basis for comparison with other cultures (finding similarities and differences). In addition to understanding how culture will affect interpersonal communication and working relations, dimensional cultural training can also assist individuals in understanding their own decision-making process.

As identified above, an educative process alone is insufficient without the opportunity for individuals to 'test and adjust' this knowledge in their own world view and the working environment. An effective generic cultural training package would be best placed progressively throughout the professional training continuum. Training centres such as Kapooka, the Australian Defence Force Academy and Duntroon are well situated to deliver introductory cultural training with a focus on promoting awareness of those cultural dimensions prominent in Army life. Promotion courses or a dedicated cultural competence course could then be utilised to strengthen the cultural knowledge base of individuals of all ranks and specialties. Ultimately, this new pathway to creating a culturally competent Army requires the removal of generic cultural training from the force preparation phase and its incorporation in the general training continuum.

Conclusion

The military application of cultural skills is not a new concept. Commentators such as David Kilcullen advocate the importance of cultural training for those who are to be deployed to nations driven by an inherent political struggle and where the support of the local population becomes a measure of success during insurgency-related conflicts.⁴⁹

Uncertainty in planning for future operations means that specific cultural training can only occur once operational planning has commenced, and this training will need to be located within the force preparation phase. Generic cultural training can prepare Army personnel to work with other nationalities and organisations even before it is clear to which operational environment the Army will deploy. Further, generic cultural training has been demonstrated to have application in facilitating strategic and organisational change that will naturally occur with societal changes such as removing gender restrictions in combat roles.⁵⁰ Tailored cultural training with an emphasis on generic cultural skills can provide an avenue for building mental resilience, expectation management and cross-cultural communication skills that can then be applied to specific objectives such as the reduction of insider threat casualties and the improved mental health of personnel.

The Army's requirement for cultural training is unique in that a balance needs to be achieved between preparation to deploy at short notice and under threat of violence, and cooperation in international and inter-organisational settings. Continued organisational and societal change also demands that Army's people are trained to understand the effects of cultural influences on their personal thoughts, opinions and behaviour. This necessitates practical steps to develop an individual's mental resilience and ability to accommodate change. The two models currently used within the Army's cultural training package are flawed: they provide a limited framework for cultural understanding and neither specifically addresses the Army's unique needs. Generic cultural training delivered progressively throughout a military career would provide a more efficient and effective mechanism for Army to attain maximum adaptability and achieve its cultural change goals. ■

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Major Matthew Carr entered the Australian Army in 1996 when he was accepted into the Australian Defence Force Academy. After completing his studies at the Royal Military College, Duntroon, he was allocated to the Royal Australian Armoured Corps and posted to the 2nd Cavalry Regiment. Follow on postings include Recruit Platoon Leader (Army Recruit Training Centre), Tactical Assault Group Liaison Officer (Joint Operations Support Section – NSW), Staff Officer Coordination and Personnel (Headquarters Joint Operations Command) and Officer in Command of Force Preparation Company (39 Personnel Support Battalion). In 2007 Major Carr deployed on operations as the Staff Officer to the Commander of Joint Task Force 633 in Iraq/Afghanistan. Upon completion of his sub-unit command time at 39 PSB in 2012, Major Carr was awarded the Chief of Army Scholarship to commence a full-time Masters degree in Applied Anthropology and Participatory Development. The intent behind this research was to further develop cross cultural knowledge and training skills for the Australian Army.

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REVIEW ESSAY

Timor Timur: The Untold Story by Lieutenant General Kiki Syahnakri (retd), Indonesian Armed Forces

Bob Lowry

Timor Timur is a memoir by Lieutenant General Kiki Syahnakri (retd) who was plucked from relative obscurity to restore a degree of order in East Timor and hand responsibility to the International Force East Timor (INTERFET) which arrived in September 1999.¹

In total Kiki spent 11 years (one third of his military career) in Timor, commencing as a platoon commander in a territorial battalion and then as commander of a small regional military command (KORAMIL Atapupu) on the West Timor border with East Timor in 1975.² In that capacity he opened the border to the fleeing Timorese Democratic Union (UDT) forces and fired the first Indonesian mortar rounds into East Timor to ward off the pursuing Revolutionary Front for an Independent East Timor (FRETILIN) troops. He was, as the memoir records, the man who opened and closed the gate on Indonesia's annexation of East Timor.

He is highly offended at being branded one of the 'Masters of Terror' during the occupation and, given Bishop Carlos F.X. Belo's postscript to the book, has some justification for his indignation.³ Bishop Belo lists Kiki among a small band of Indonesian military officers and officials who spoke the language, understood the culture and tried to win the hearts and minds of the Timorese rather than terrorise them. However, as Belo noted, all too frequently such people had their tenure in Timor cut short by those with other interests.

For analytical purposes, the book can be divided into four parts. First, it has a foreword by the author, three prologues, and ends with two epilogues. Second, the memoir covers his pre-1999 service in East Timor with infantry battalions and as military commander in Dili ending in April 1995. Third, he describes his service as martial law administrator during the period 10–27 September 1999, followed by command of the regional military command (KODAM IX), including the border with East Timor. In the fourth and final part he reflects on his service in Timor.

Part I is designed to maximise market potential and enhance the credibility of the author. The first prologue is by Lieutenant General Sayidiman Suryohadiprojo (retd), who was never directly involved in Timor; the second is by General Wiranto (retd) who was Commander-in-Chief (C-in-C) of the Indonesian Armed Forces (TNI) in 1998–99; and the third by F.X. Lopes da Cruz, a UDT Central Committee member and leading proponent of integration with Indonesia. Unfortunately, Sayidiman's description and analysis of how Indonesia came to invade East Timor in 1975 is anecdotal and misleading. Readers would be better advised to read Bob Elson's biography of Suharto and Jusuf Wanandi's memoir on this topic.⁴

Wiranto's prologue focuses on the period of the plebiscite when he was C-in-C TNI. Wiranto laments that none of the honest explanations, testimony, or evidence presented to the various reviews and courts has cleared the reputation of TNI and police officers who served in East Timor. This is a reputation, according to Wiranto, that was created by invisible hands with strong and pervasive networks. A reading of former Bishop Belo's remarks at the end of the book, and the Report of the Commission of Truth and Friendship commissioned by the governments of Indonesia and Timor-Leste, explains why Wiranto's lament is likely to retain its currency.⁵ Lopez da Cruz's prologue is unexceptional, focusing on his connections to Kiki and commenting on his fluent Tetun and undisputed love of Timor.

The epilogues are by former president and current Prime Minister 'Xanana' Gusmao and Bishop Belo. Prime Minister Xanana vouched for Kiki's openness, cooperation, and integrity as martial law administrator and as Commander KODAM IX,

and repeated his standard line that 'we do not hide the truth, but choose reconciliation'. Belo gave Kiki (a Muslim) a glowing reference as one who truly understood the traditions and culture of eastern Indonesia, including Timor, spoke the language (Tetun) fluently and married a Catholic girl from Sumba Island. He also appreciated his cooperation in facilitating the repatriation of East Timorese from West Timor after independence, and his disarming of the militia.

Part II covers Kiki's pre-1999 service on the border (1972–77) — with infantry battalions as second-in-command and commander (1981–83 and 1987–88) — and as deputy commander and then military commander in East Timor (1993–95). As a junior officer he had no role in the politics of Indonesia's engagement in East Timor until he returned in 1993–95. Even then his operational role was confined by national policy and the nature of the Suharto regime.

Kiki was born in West Java in 1947, the only child of a rice farmer. His father died in 1963 and his mother died only five years later. He graduated from the military academy (AKABRI) on 8 December 1971 and was posted to a territorial infantry battalion (743) in Kupang, West Timor, and Sumba Island thereafter until, much to his chagrin, he was posted to the district military command (KODIM) in Atambua in December 1974. There he collected basic military intelligence, including on the Portuguese military posts dotted along the border, and began learning Tetun, one of the keys to his future success. He also attended periodic border liaison meetings with the Portuguese and facilitated covert Indonesian forces operating in East Timor prior to the invasion in December 1975.

Dances that often lasted until dawn were one of the few social outlets in Atambua and it was here that Kiki met his future wife, Kasperina Ratnaningsih, the daughter of a public servant from Sumba Island and herself a civil servant studying at Nusa Cendana University in Kupang. They married in Bali after Kiki was posted there as a company commander to the territorial infantry battalion (741) in December 1977. They would have three children and Ratna and the family would accompany him on some of his postings to Timor.

In August 1981 Kiki was posted as deputy commander to one of the two Timorese infantry battalions (744) based in Dili, occasionally exercising command. He arrived in the middle of Operation Kikis II in which the guerrilla base area around Mt Aitano was surrounded and many guerrillas who had survived previous operations were killed or captured. During this operation, a well-conceived and executed manoeuvre by 744 and Wiranto's battalion, many guerrillas were killed and captured, with Xanana Gusmao himself only narrowly escaping capture.

There has been much criticism of the use of civilians in these operations to flush out the guerrillas. Although their use is mentioned, there is no discussion of how they were employed and sustained. However, Kiki's pride and respect for his Timorese soldiers shines through. He found them to be first-class navigators, well disciplined, very fit and unflinchingly loyal. He also succeeded in 'turning' many of the captured guerrillas by treating them humanely and building trust so that they would participate in operations against their former comrades. Prior to his arrival the battalion had also formed a special team of Timorese, including ex-FALINTIL fighters (Team Somodok) that became expert at scouting and seeking out guerrilla bases and units.⁶

With the success of Kikis II and follow-on operations, the army initiated talks with Xanana in early 1983 and troop levels were cut back to five battalions and a Special Forces team plus the territorial command. However, the talks fell apart after a deadly FALINTIL attack in August and reciprocal military massacres in September around Cararas. With General L.B. Murdani now commanding the armed forces, another major offensive was launched to deal with the rebels once and for all. Before the new offensive was launched, Kiki was sent for training and postings with the Army Strategic Command (KOSTRAD) in central Java before attending the Naval Staff College (SESKOAL) in 1986–87.

Kiki was then given command of the 514th Infantry Battalion (KOSTRAD) which was one of seven battalions sent to Timor in late 1987 to rotate with units returning home. Kiki's battalion was stationed in Same, in the central-western region, and operated along the southern side of the central mountain range as far as Viqueque until December 1988 when the unit returned to Java. Although engaged in a number of minor clashes, the battalion experienced no large-scale contacts during the tour as FALINTIL had been reduced to a rump over the previous years. He had also handed over nine 'turned' FALINTIL prisoners to the incoming battalion led by Prabowo Subianto.⁷

Thereafter, Kiki served with KOSTRAD in central Java, eventually becoming Commander 6th Brigade in Solo before returning to Dili as deputy commander under Colonel Johny Lumintang in June 1993. This was less than two years after the November 1991 'Dili Massacre' and Indonesia was grappling with the new human rights agenda, increasing international attention following the end of the Cold War, and attempts to introduce more effective community development programs to meet the needs of the burgeoning and largely unemployed youth population.

Despite the best efforts of Lumintang and Kiki, incidents of abuse by their troops continued. As Kiki records, after one such incident Belo came to see him to complain about continuing incidents of assault. Kiki asked him not to blame ABRI as it was only the actions of a few misfits but Belo tellingly responded that it seemed that ABRI was sending battalions of misfits to Timor.⁸ Belo of course was pointing to the institutional nature of a problem stretching back to the characteristics of the Suharto regime — a problem that could not be solved by local commanders, no matter how well intentioned.

In August 1994 Kiki assumed the reins of Commander Military Resort Command (KOREM) from Lumintang. During his tenure attempts were made internationally to restart the dialogue on East Timor and, within Timor, there was discussion of some form of special regional autonomy that seemed to be gaining some support. Before it could take a more substantial form, however, Kiki and Governor Abilio Soares were called to Jakarta where Suharto told them personally that special arrangements for East Timor were not acceptable and that he would be telling President Clinton this at the upcoming APEC talks in Bogor.

This decision was not well received in Dili where protests continued and advances in media technology were bringing increasing international attention to the protester's demands. This was when Colonel Prabowo, Deputy Commander of the Army Special Forces Command (KOPASSUS) and son-in-law of Suharto, appeared and suggested, as part of a broader operation, that the covert Special Forces detachment establish 'competing masses' (Massa Tandingan) in Dili to confront the pro-independence rallies. Kiki opposed this on the grounds that ABRI would be blamed for the excesses that would inevitably follow and spread beyond Dili. It would also undermine the argument that Indonesia had used to justify the initial invasion, i.e., to stop the civil war between the UDT and FRETILIN.

Without Kiki's consent (and not recorded by him in his memoir), the Special Forces then instituted a smaller, more covert version of this tactic using gangs of what became known as 'Ninjas' to intimidate the protesters. Whether because of his dispute with Prabowo, or his being held responsible for the killing of four (six according to other sources) prisoners on the orders of a junior officer, after only eight months in the job, Kiki was on the plane back to Java and was replaced by the KOPASSUS chief of intelligence, Colonel Mahidin Simbolon. The downward spiral towards the 1999 denouement was becoming unstoppable.

Part III is about Kiki's 1999 post-ballot service. Whatever the reasons for his early relief of command in Dili, Kiki's career was not over. He filled several staff and training appointments before being appointed Deputy Chief of Operations in Army Headquarters in July 1997. He was then promoted major general and Chief of Operations in May 1998 just before the fall of Suharto.

Although Army Headquarters supplied troops for operational deployments, it did not command operations. That was the task of the Armed Forces Headquarters under General Wiranto. Nevertheless, Kiki was in a good position to witness the intrigue surrounding the fall of Suharto, the struggle for power within the army thereafter, and the mayhem that engulfed the archipelago as old scores were settled and long-suppressed insurrections were reinvigorated, including in East Timor.

Unfortunately, the book gives us few insights into any of this because it is a memoir of Kiki's service in Timor. So there is a substantial jump from his truncated service in East Timor in early 1995 to his sudden appointment as Martial Law Administrator taking effect on 10 September 1999, 10 days after the ballot and Timor's final descent into an orgy of violence, arson, looting and forced displacement of tens of thousands of people.⁹

Kiki is conflicted in this part of the book between his desire to preserve the TNI myth that Indonesia was robbed of East Timor by the perfidy of the international community, especially the United Nations Assistance Mission in East Timor (UNAMET), and the duplicity inherent in Indonesia's interpretation of its commitments to the United Nations (UN) in the 5 May 1999 agreement, and his desire to analyse Indonesia's failings during the occupation to ensure that the lessons are applied to Papua.

There is also a lingering concern to avoid the possibility of the prosecution for crimes against humanity even though Indonesia's strategic importance makes this highly unlikely. Domestic concerns relating to the preservation of the TNI's national standing and control of the military reform agenda are also factors.

Consequently, it is not surprising that he regrets that then President B.J. Habibie opened the door to a referendum in East Timor when all sides had agreed on limited autonomy. However he does not mention that Habibie's decision was not opposed by his fellow generals in the cabinet. He absolves the TNI of responsibility for the violence and blames the police for their incompetence in maintaining and restoring order. The 2008 report of the Commission on Truth and Friendship leaves no doubt that the violence was systematic and institutionalised, but the report could not authoritatively trace the lines of command beyond Timor because of the lack of cooperation from the TNI.

However, it is known that the Coordinating Minister for Defence and Security, General Feisal Tanjung, contrary to the 5 May 1999 agreement with the UN, decided that his mission was not only to secure the ballot but also to win it for Indonesia.¹⁰ The money and instructions for covert operations in support of autonomy flowed down through a range of government departments and various TNI linkages.

Kiki records that, in anticipation of a possible violent reaction following the ballot, the army had prepared eight infantry battalions to restore order if required.¹¹ Why they were not deployed before or the day after the ballot we can only speculate. They went in with Kiki to replace 'contaminated' units that had been on the ground during the ballot. It is also noteworthy that Kiki took as his deputy Brigadier General Amirul Isnaini, the Deputy Chief of Security (intelligence) from Army Headquarters, because of his 'access to and his good and extensive relations with the pro-integrationists, especially the pro-integration militias' (PPI).

Before describing his final experiences in East Timor, Kiki takes a swipe at the supposed bias of Ian Martin, Special Representative of the Secretary-General and Head of UNAMET, and UNAMET generally, citing the discredited accusations of Zacky Anwar Makarim, the senior military officer in the Indonesia Task Force in East Timor to oversee the ballot.¹² There is no need to recite these allegations here as they have been answered by Ian Martin and Indonesia's acceptance of the results of the ballot.¹³ The allegations arose naturally from the tensions inherent in Indonesia's dual role as security guarantor and covert supporter of integration in opposition to UNAMET's charter to allow equal opportunity for both Timorese factions to participate in the ballot.

Kiki also accuses Ian Martin of spreading 'unfair, tendentious, and filthy lies' to justify the intervention of foreign troops. Martin concedes that he told the United Nations Security Council (UNSC) mission on 11 September that the destruction of Dili port had occurred after the declaration of martial law but later informed them that he had been mistaken.¹⁴ This mistake was of minor import however, as Habibie had sent General Wiranto to Dili with the UNSC mission to review the situation with Martin and it was Wiranto who advised President Habibie on 12 September, in view of the breakdown of local government and the continuing mayhem, to accept the international offer of peacekeepers rather than using Indonesian troops to maintain control until the UN could establish a mission.¹⁵

He then concludes that Habibie made three major errors: first, agreeing to have a referendum, second, taking responsibility for securing the ballot, and third, for declaring martial law on 7 September when the TNI was under attack from all quarters at home and abroad thus giving Kiki a 'mission impossible'. These were all, of course, self-inflicted wounds, with which his military superiors had agreed.

After taking command in East Timor on 10 September, Kiki quickly established a degree of control around critical areas of Dili, including the UN compound. He also facilitated the evacuation of UN staff to Darwin. But the arson, looting, murder and displacement of people across East Timor continued.

The Australian Army attaché, Colonel Ken Brownrigg, had been located at the Consulate in Dili since 23 August and had discussed the situation in Dili with Kiki on several occasions in Jakarta and immediately established contact with him on arrival in Dili. Brownrigg was thus in a good position to advise and coordinate the transition to INTERFET that followed Habibie's decision of 12 September.

As Kiki records, Brownrigg told him of his concern that, unless the militia was brought under control, there would be casualties when INTERFET arrived. Revealingly, Kiki responded that, as they had worked continuously with these people for the last 23 years, they could not just go out and 'shoot or wipe them out', so he proposed solving the problem by moving them to West Timor with all its risks and consequences.

Brownrigg was also able to advise on the adjustment of INTERFET's deployment plans to reduce the chances of unnecessary friction between the two forces. As a consequence of this early preparation, but with some potentially fatal early exceptions, cooperation between Kiki and the INTERFET commander, Major General Peter Cosgrove, ran smoothly — although Kiki noted that, while Cosgrove tried to observe Javanese manners and sensibilities, on several occasions he forgot and reverted to his Australian ways.

Kiki recites the challenges and incidents that confronted them during the week-long handover period between the two forces and his sadness at leaving in such circumstances having spent 11 years of his military career in Timor (East and West). He handed over responsibility for the security of East Timor to INTERFET on 27 September 1999 but his connection continued through his appointment as the Commander KODAM IX based in Bali, including responsibility for border security with East Timor. In that capacity he had to deal with East Timorese refugees who came both prior to and after the ballot, and the militia that accompanied them, and maintain cooperative linkages with INTERFET and successor missions.

Kiki describes an encounter with Richard Holbrooke, the US Ambassador to the UN, who visited West Timor and became frustrated that he could not gain confirmation from any of the refugees that they had been forcibly removed from East Timor. Refugees ended up in West Timor for varying reasons but, as the report of the Commission on Truth and Friendship found, there is no denying that many were there against their will.

However, the encounter shows a degree of naivety on both sides. Imagine a refugee in West Timor in a highly uncertain security environment being asked by a transient American in the presence of the TNI, police, and possibly militia members or sympathisers whether he or she had been forced into moving to West Timor. For Holbrooke to think he could get an honest answer in such circumstances is as naïve as Kiki believing that the negative answers proved that no refugees had been forced over the border.

Nevertheless, Kiki's knowledge of the sensibilities of the Timorese comes through in his description of the complexity involved in disarming the militia. Despite the heightened emotions and prevailing self-interest, he eventually succeeded in disarming them without inciting more violence. He also gives an account of the killing of the New Zealand soldier, Private Manning, near the border on 24 July 2000 which differs from the official New Zealand report. He refutes claims that the TNI or militia was involved in the seizure of two weapons from Australian troops and the death of two Gurkha soldiers around this time. He provides an account of the murder of three United Nations High Commission for Refugees (UNHCR) workers by the militia in Atambua on 6 September 2000 which, although it showed the failure of security arrangements in Atambua over the preceding months, demonstrates his decisive hands-on style of leadership. He flew to Atambua that night on Vice President Megawati's plane and immediately made contact with the UN mission to arrange the evacuation of all UN staff from Atambua.

He also points to several incidents of misinformation around these times. One occurred during the Atambua incident when he was informed by the UN that 100 trucks loaded with militia were heading towards Atambua. Kiki regarded this as impossible, but sent a helicopter to check, although no sign of the truckloads of militia was found. Consequently, when the Coordinating Minister for Defence and Security in Jakarta rang a few minutes later with a claim that there were now 150 trucks heading for Atambua, Kiki was able to assure him that there was no substance to the report. As Kiki implies, it would be interesting to know the origin of these reports.

Another incident occurred just prior to the Atambua incident when media reports alleged that the TNI was training 15,000 militia around Atambua to cause havoc in East Timor. At a meeting with the UN mission Kiki refuted the reports and, after the UN rejected his suggestion of joint patrols to check, he was able to persuade the Australian and New Zealand military attachés to verify that they could find no evidence of such arrangements.

Kiki also reports on various disputes with Sergio Vieira de Mello, head of the United Nations Temporary Administration East Timor (UNTAET), and Robert Gelbard, the US Ambassador to Indonesia, and more friendly meetings with Xanana Gusmao and Taur Matan Ruak, the East Timor Defence Force/FALINTIL commander.

After a busy year in Bali, Kiki was promoted to Lieutenant General and Deputy Chief of Army Staff in November 2000 and retired in May the following year.

The final part of the book is a series of reflections on his experiences in Timor. He attributes Indonesia's failures in Timor to adherence to inappropriate and outdated US military doctrine; a failure to apply the principles of counter-guerilla warfare, including the alienation of the population through misconduct and the shooting of unarmed civilians; the failure to make use of traditional structures of power, including the Roman Catholic Church; the over-centralisation of authority in Jakarta; the failure to integrate military operations and community development; the arrogance of many TNI and police who served in Timor and the presence of widespread corruption; and the failure of media relations. Perhaps the most significant comment in this part is his plea that '[we] need to be aware also that military operations will not succeed if the people are still mired in poverty, as they are now in Papua.'

Many of these reflections will give rise to debate and that is to be encouraged. This also demonstrates that the TNI has yet to come to terms with its own history, although hopefully this book will prompt more introspection as part of coming to terms with the broader history of the New Order and the TNI's central role in it.

For this reviewer, the great tragedy for Indonesia and East Timor is that General Feisal Tanjung and his colleagues did not honour the obligations Indonesia had accepted under the 5 May 1999 agreement with the United Nations, and that they did not put someone of Kiki's standing, knowledge, and competence on the ground to administer and enforce the agreement. The book is easy to read and thought provoking and is highly recommended to anyone interested in Indonesia's engagement with East Timor, the history of Indonesia itself, and the reflected light it casts on contemporary challenges in continuing military reform and managing tensions in Papua. ■

Timor Timur: The Untold Story, Kompas, Jakarta, 2013, ISBN 9879797096830, 435 pages, currently only available in Bahasa Indonesia.

THE AUTHOR

Bob Lowry is the author of a number of books including *The Armed Forces of Indonesia* (Allen & Unwin, St Leonards, 1996); *Fortress Fiji: Holding the Line in the Pacific War, 1939-45* (self-published, Sutton, 2006); and *The Last Knight: a biography of General Sir Phillip Bennett AC, KBE, DSO* (Big Sky Publishing, Newport, 2011).

ENDNOTES

- 1 Kiki Syahnakri, *Timor Timur: The Untold Story*, Kompas, Jakarta, 2012. Currently only available in Indonesian.
- 2 Unsurprisingly, Kiki's operational service was restricted to Timor.
- 3 H. McDonald et.al., *Masters of Terror: Indonesia's Military and Violence in East Timor in 1999*, Rowman & Littlefield, Oxford, 2006.
- 4 R.E. Elson, *Suharto: A Political Biography*, Cambridge University Press, Cambridge, 2001; Jusuf Wanandi, *Shades of Grey: A Political Memoir of Modern Indonesia 1965-1998*, Equinox, Jakarta, 2012.
- 5 *Per Memoriam Ad Spem: Final Report of the Commission of Truth and Friendship (CTF) Indonesia-Timor-Leste*, 2008. This is an objective albeit incomplete report on the events of 1999.
- 6 FALINTIL was the military arm of FRETILIN.
- 7 Later promoted lieutenant general and currently presidential aspirant for the 2014 elections.
- 8 When the police were separated from the Armed Forces of Indonesia (Angkatan Bersenjata Indonesia – ABRI) on 1 April 1999 the armed forces reverted to their previous title of Tentara Nasional Indonesia – TNI.
- 9 See the Final Report of the Commission of Truth and Friendship. Martial Law was declared on 7 September.
- 10 Solemanto, et. al., *Feisal Tanjung: Terbaik Untuk Rakyat Terbaik Bagi ABRI*, Dharmapena, Jakarta, 1999, p.722.
- 11 There were at least 8000 troops in Timor along with an equal number of police prior to the ballot.
- 12 Z.A. Makarim, et al, *Hari-hari Terakhir Timor Timur*, Sebuah Kesaksian, Jakarta, 2002.
- 13 I. Martin, *Self-Determination in East Timor: The United Nations, the Ballot, and International Intervention*, International Peace Academy Occasional Papers Series, Lynne Rienner, Boulder, 2001, p. 40.
- 14 Email to author from Ian Martin of 28 October 2013. He also noted, 'I never had any reason to agree with those who listed Kiki among the really bad guys'.
- 15 Solemanto, *Feisal Tanjung*, p. 743.

BOOK REVIEW

Climate Change and Displacement Reader

Scott Leckie, Ezekiel Simperingham and Jordan Bakker (eds),
Earthscan (Routledge), 2012, ISBN 9780415691345, 512pp, RRP £29.99

Reviewed by Chris Baker

Climate change continues to simmer as an issue for security analysts the world over. Of deep concern to many is the idea that hundreds of millions — according to some assessments — of climate change refugees may be on the move in coming decades due to climate disasters. This understandably creates a sense of angst amongst policymakers and defence planners who are already juggling domestic issues of irregular migration and refugees with the associated real or perceived security issues.

The *Climate Change and Displacement Reader* goes a long way to demystifying this highly complex and often controversial issue. It is an excellent source for theorists and practitioners alike, as it provides a comprehensive overview of the issues as they currently stand, introducing the reader to the leading research and discourse on climate change displacement. The structure of the book facilitates an efficient reading experience, with five separate sections covering different themes.

There is a strong legal and normative theme flowing throughout the book and sections two to five place human rights at the centre of the debate with sections four and five looking more specifically at the social (Section 5) and political (Section 4) aspects. Section five, 'Community and NGO responses and proposed solutions', is a micro analysis of the ways that local communities have adapted, or are planning to adapt to climate change. It includes a chapter on climate justice by the Global Humanitarian Forum (Chapter 49, pp. 478–87) that challenges us to 'think more deeply about our conceptions of obligation and responsibility' (p. 479) and therefore who should be responsible for the impact of carbon pollution on the world's poor. Section four, 'Affected countries', takes a more political approach to human rights and climate displacement. It is divided into Asia and the Pacific, and the majority of chapters are governmental papers or those focused on political action and adaptation strategies. Of particular interest to Australian readers may be the Labor Policy Discussion paper by Anthony Albanese and Bob Sercombe whilst in opposition in 2006 (Chapter 30).

Anyone wishing to comprehend the complexities and controversies of climate change displacement must understand the legal minefield that acts as a barrier to those displaced by climate change seeking refuge. Sections two and three provide a solid introduction in these. Although journalists and politicians continue to refer to 'climate refugees', the academic and legal community is, for the most part, attempting to come to terms with the uncertain international legal status of those who are displaced by climate change. This has led to such notions as Internally Displaced Persons (IDPs), Stateless Person, Environmentally Forced Migrant and the like. Section two, 'International legal and institutional framework', provides important literature on the subject from UNHCR, the UN Security Council and the UN General Assembly among others. Section three, 'Proposed new legal standards', suggests some possible solutions to the problem including the initiation of a new international convention on Climate Change Displaced Persons (CCDPs).

Currently, the United Nations High Commissioner for Refugees (UNHCR) has the monopoly over the terminology of the conditions that lead to 'genuine' refugee status. The idea that a refugee is 'one seeking refuge' has led to terms such as 'Environmental Refugee' and 'Climate Change Refugee'. The UNHCR maintains that '(t)hese terms have no basis in international refugee law' due to the fact that 'refugee' is a legal term (p. 149), although there is an acknowledgement that refugee movements will be increasingly 'provoked by armed conflict rooted in environmental factors' (p. 147). The 1951 Refugee Convention provides a very specific set of guidelines that classifies a refugee as someone who is 'outside

the country of his nationality' and has a 'well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion' (p. 174). Essentially, a person may be granted refugee status for strictly political reasons only. Given that there are already over ten million refugees of concern to the UNHCR, half of these in Asia, it is understandable and foreseeable that the UNHCR and the international community in general have strong reservations about allowing a whole new class of refugee to appear at the stroke of a pen — especially for something as technically vague as a 'climate change refugee'.

It is the first section, 'The reality of climate displacement', of the *Climate Change and Displacement Reader* that is likely to offer the most value to policymakers and defence planners, however. This section provides an overview of the important theoretical discourse as well as the current environmental situation. Asia is highlighted as one of the most vulnerable regions to climate change disasters, particularly the Asian mega-deltas (p. 38) and a differentiation is made between sudden-onset disasters (such as storms and floods) with the accompanying short-lived displacement, and slow-onset disasters (such as sea-level rise) with the slow but presumably permanent displacement that results (p. 37). Children and the elderly, particularly those in developing countries, are identified as the most vulnerable to climate change displacement (p. 18). Poverty also plays a significant role — and therefore people are more likely to be internally displaced (within the borders of their own nation) given the high costs associated with international migration (p. 69). As to where climate-displaced persons might attempt to migrate to if they do choose to cross international boundaries, Oli Brown suggests that most people would 'tend to seek refuge in places where they have existing cultural and ethnic ties' (p. 79), for example, Australia and New Zealand would be a destination of choice for those in the South Pacific. He does not mention Australia's longstanding cultural and familial ties with parts of South-East and East Asia.

In addition, Steve Lonergan's chapter (Chapter 4) scrutinises some of the numerically very high predictions of expected 'waves of refugees' caused by climate change, challenging the 'uncritical acceptance of a direct causal link between environmental degradation and population displacement' (pp. 59–60). He does not suggest that there are no links, but cautions instead against fear-driven policy and military reactions to predictions such as Myer's (1992) assessment that there will be upwards of 150 million environmental refugees. This is important to understand — particularly in relation to slow-onset disasters such as sea-level rise — as differentiating between the environmental causes and

the economic, social and political contributing factors is difficult, if not impossible. Given the current political environment in Australia in which the government is seeking to make a case against asylum seekers on the grounds of their being 'economic migrants', this is a salient point.

The *Climate Change and Displacement Reader* is an important text for any who are seeking to understand the links between climate change and human migration. This policy-oriented text provides readers a solid theoretical and empirical foundation on the issue and information and evidence to make their own judgements on the human and legal dimensions. For security and defence analysts, this reviewer would suggest reading it in conjunction with Dupont and Pearman's *Heating up the Planet* (2006) and Palazzo's *The Future of War Debate in Australia* (2012). There is little doubt that the issue of climate change and human migration will continue to grow in importance over coming decades for policymakers and defence analysts, whether they plan for it or not. ■

BOOK REVIEW

The Changi Camera: A Unique Record of Changi and the Thai-Burma Railway

Tim Bowden, Hachette Australia, Sydney, 2012, ISBN 9780733629624, 242pp, RRP AUD\$35.00

Reviewed by Dr Janda Gooding, Head of Photographs, Film, Sound and Multimedia, Australian War Memorial

The Changi Camera is the second book by Tim Bowden that utilises the recollections of George Aspinall who became an Australian prisoner of war (POW) when Singapore was taken by the Japanese in February 1942. The first book was originally published in 1984 as *Changi Photographer: George Aspinall's Record of Captivity*. The new book has been expanded to include a section written by Tim Bowden providing an overview of the Australian POW experience. This provides much-needed historical context for Aspinall's recollections that are drawn from a series of oral histories conducted by Bowden in 1982 and 1983 as part of the Australians Under Nippon ABC radio documentary. The 2012 book also omits Aspinall's name from the title. This is an unfortunate decision considering that Aspinall's words and images still form the larger part of the book.

George Aspinall of the 2/30th Battalion took only around 100 photographs when he was a prisoner of the Japanese in Singapore and Thailand. Risking execution if found with a camera, Aspinall secretly used his small folding Kodak Number 2 camera after his capture in Singapore in February 1942 and documented life at Changi Prison. When assigned to move north with 'F' Force to help construct the Burma-Thailand railway, he took his camera and managed to take about 20 more photographs. Aspinall was careful to not arouse suspicion when he took the photographs. He then crudely developed the negatives to help prevent them deteriorating in the extreme conditions. Fearing that his luck would run out and he would be discovered, in late 1943 he broke up the camera and hid the negatives in an effort to evade the regular body searches performed by Japanese guards. Towards the end of the war, his negatives were put in a sealed container along with other photographs and precious documents collected by the commanders of the Australian forces and buried in a latrine bore-hole. The container was recovered after the war and the contents used as evidence in war crimes trials.

Approximately 60 original negatives survived and are now preserved at the Australian War Memorial together with the oral histories recorded with Aspinall. Many of the negatives are badly damaged by environmental conditions and as a result of the rough-and-ready techniques and materials used by the photographer. The majority of the photographs are of Australian prisoners at Changi and include several taken during the Selarang Barracks incident when POWs were herded into the barracks square and kept there for four days in an attempt to force them to sign an agreement that they would not escape. While these are an important visual record of a significant event, it is Aspinall's few images of the treatment of Australian prisoners while working on the Burma-Thailand railway for which he should be remembered. In just a handful of photographs Aspinall documented the decline of men from disease and starvation. One photograph shows three Australian men from Shimo Sonkurai No 1 Camp. These men were deemed by the Japanese guards as fit to work on the railway. Their bodies — barely covered by thin and worn shorts — are wasted from malnutrition, dysentery and beriberi.

Aspinall was not the only Australian prisoner to carry a camera but his is one of the better documented stories. In *The Changi Camera* his account of survival as a POW is made far more powerful by the inclusion of the photographs. As we study those images we can only try to imagine the mental trauma and distress of men under such pressure. Aspinall said several times that, initially, he did not intend to compile a documentary record of how prisoners were treated; his camera work was more a means to keep his mind occupied and do something different from

the everyday tasks of camp life. But at the end of the war it was clear that any photographs taken by prisoners would be vital evidence in the forthcoming war crimes trials to substantiate allegations of Japanese atrocities. George Aspinall's photographs, then and now, provide the proof of something that happened that we may find too awful to believe based on words alone. They bear witness to the suffering experienced by Australians and others on the Burma-Thailand railway and remind us that both the best, and the worst of men, can be exposed in time of war. ■

BOOK REVIEW

The Passion of Bradley Manning: The Story Behind the Wikileaks Whistleblower

Chase Madar Verso, London & New York, 2012, ISBN 9781781680698,
188pp, RRP US\$14.95

Reviewed by Steven L. Jones

The Passion of Bradley Manning was always going to be a polemic book. While Manning's release of confidential information to Wikileaks is taken as fact, opinion is divided as to the moral nature of his actions. For his detractors, he is a dangerous traitor of the highest order and deserving summary execution for undermining national security and providing support to the enemies of freedom and justice. For his supporters, he is a martyr of the highest virtue. While the truth is obviously somewhere in between, Madar's book sits firmly in the latter category. While the book deals with matters specific to American politics and operations, it poses universal questions and offers a case study relevant to the Australian Defence Force (ADF).

Madar's book certainly has many faults. While a strongly partisan book is not inherently bad, this one is characterised more by rhetoric than analysis, and there is very little original research. This is essentially not a book about Manning,

but about the political and military system which Manning supported but then rejected. The purpose of the book is to direct the spotlight from the criminal and personal specifics of the case to the broader political and moral aspects.

Although there has been a great deal of literature dealing with public accountability and the difference between declared values and operational practice in the 'Long War', Madar's book does offer some new insights. Of particular note are the lax information security arrangements which allowed Manning to easily collect and transfer confidential information, and the description of a military under such manpower pressure that Manning was deployed in a high security role despite the numerous warning signs.

In basic training, with recruitment numbers at their nadir, Manning was assigned to the Discharge Unit, but was 'recycled' for active service. At 5' 2" and 115 pounds, Manning was hardly ideal army material physically, not to mention behavioural and psychological issues, which later became evident. As an intelligence analyst at Fort Drum in New York, Manning 'didn't get along with his roommates', was 'written up tossing chairs around in a fit of rage [and] for yelling at superiors', was 'mildly reprimanded' for broadcasting information about the base on YouTube, protested against Don't Ask Don't Tell, and was required to receive mental health counselling. While his superiors discussed leaving Manning behind when the unit was deployed to Iraq, the need for computer savvy analysts overrode their concerns, and he was deployed to FOB Hammer in Iraq in 2009.

While it is tempting to link Manning's mental and gender issues to his actions, designating the leaking of information as the actions of a social misfit, Madar is keen to define Manning's actions as a deliberate political act. The valuable core of this book is an account of morality tested in an operational environment, of a strong personally derived morality in conflict with an externally imposed institutional ethic. Madar's characterisation of Manning, one which is supported by the chat logs, is that of an idealist. Manning believed in America as the exemplar of virtue; he believed in the American values of liberty and democracy and believed in America's mission of bringing them to Iraq. Madar positions Manning as a patriot, supporting this position with declarations from the Founding Fathers and other great American leaders who articulated the need for transparency in government.

Ultimately, Manning is unable to reconcile the differences between the declared values and ideals of America and the practical ethics of operational necessity. The final straw is a case in which Manning's unit is involved in the arrest of civilians by the Iraqi Federal Police for producing a pamphlet critical of corruption in the

new regime. Realising the essentially democratic actions of the arrested Iraqis and the likelihood of abuse at the hands of the local authorities, Manning takes this information to his superior but is told to 'shut up and help find more detainees'. After this event, Manning sees things differently, realising that he is a part of something he doesn't believe in, something which acts against his own and America's values. Believing that Americans would not support the war if they knew what was happening, the details and the ugly truths, he decided to take a moral stand and reveal confidential information to the world to promote openness and debate.

With future wars likely to replicate the moral quagmire of Iraq and Afghanistan, the differences between military ethics and operational necessity on one hand and national values and civilian morality on the other is an issue requiring serious consideration. A clear understanding of Manning's motives will have to wait for a more detailed biography, but there is sufficient in this book to warrant its careful study. ■

BOOK REVIEW

Underdogs: The Making of the Modern Marine Corps

Aaron B. O'Connell, Harvard University Press, 2012,
ISBN 9780674058279, 400pp, RRP US\$29.95

Reviewed by Tristan Moss

The United States (US) Marine Corps occupies an exalted place in American society, as the vast array of popular films, books and television series attests. As the fighting arm of the 'light on the hill', the Marine Corps promotes US values as much as the Marine himself embodies them. Such is the power of the Corps that it is easy to assume that this has always been the case. In his cultural history, *Underdogs: The Making of the Modern Marine Corps*, Aaron B. O'Connell explores the transformation of the Marine Corps from a 'tiny, unpopular and institutionally disadvantaged' service into a paragon of fighting power and moral strength. The book covers the period between the US entry into the Second World War and the War in Vietnam; it was during this time that the Marines built their public image, defended their very existence and finally positioned themselves as an indispensable 'fire brigade' for US interests throughout the world.

The period in question saw the Marine Corps perfect a system of public relations and lobbying that was the envy of the other services. O'Connell argues that this system of engagement with the public and with lawmakers was the product of a siege mentality among Marines, who felt that their service was perpetually under threat of disbandment. Consequently, the Marines actively constructed a dual image based on tradition and values. On the one hand the Corps presented itself as embodying aggressive masculinity, typified by its motto 'first to fight'. As the Cold War began in earnest, the Corps also rejected the more technological focus of the other services, preferring to emphasise a more romantic image of the fighting man and his rifle. At the same time, the Marine Corps sold itself directly to American homes, positioning the individual Marine as a husband, father or brother. Reinforced and refined as the Cold War progressed, this dual image contributed to the cultural power of the Corps by allowing it to not only present itself as the defender of America as a nation, but also as an upholder of American values.

Underdogs is a detailed and probing book, and does not hold back from examining the darker side of the hard-fighting Marine Corps identity. The chapter on alcoholism, domestic violence and the abuse of new recruits during training is woven into the story alongside the more romantic images of the Corps. The way in which the Corps dealt with these problems, while at the same time seeking to affirm its place as the upholder of US martial spirit in the face of fears that the country was becoming 'soft' at a crucial stage in the Cold War, is a fascinating insight into the competing pressures of a society facing both an existential threat and in the throes of modernisation.

Alongside the Corps' engagement with the public, *Underdogs* explores the more storied history of civil-military relations involving the Marines. In particular, O'Connell provides a very detailed dissection of the often-underhanded Marine Corps fight against military reorganisation during the 1950s and the lobbying of Congress by the so-called 'Chowder Society' of Marine officers in Washington. The creation of an informal network of congressmen that crossed partisan lines to support the Marine cause was testament to the growing power of the Corps. The willingness of the service to provide post-retirement promotions to former Marines (Joe McCarthy went from captain to lieutenant colonel after leaving the Corps) is also proof of the lengths to which the Corps was prepared to go to court favour.

At times O'Connell becomes bogged down in narrative detail. Moreover, despite being a study that rests to a great extent on a comparison with the other services, too often this comparison is not fully explored. O'Connell tends perhaps to give

the Marines too much credit without exploring their place as the smallest service, buying into the 'narrative of Marine exceptionalism' a little too much. The discussion of the Corps' embracing of expeditionary warfare during the 1960s, for instance, is presented as an example of the forward planning and an unfettered Marine thinking in the face of the other services' obsession with high end and nuclear warfare. The degree to which the Marines sought to prepare for and engage in this type of warfare, but could not, is not discussed by O'Connell, nor is the possibility that the Marines had the freedom to explore niche capabilities precisely because the other services had ensured US proficiency in nuclear and high-intensity warfare.

Overall, *Underdogs* is a model for other studies exploring how and why services construct their own image. O'Connell, paraphrasing Mary A. Renda and Edward Said, notes that 'successful military institutions "require stories as well as guns"'. *Underdogs* is a detailed and important account of the construction of the US Marine Corps story. ■

BOOK REVIEW

Bill the Bastard

Roland Perry, Allen & Unwin, 2012, ISBN 9781743312629, 288pp,
RRP AUD\$27.99

Reviewed by Margaret Palazzo, Hawker College, Canberra

Roland Perry's *Bill the Bastard* is a story of Australian servicemen, in particular the men of the Light Horse, and their mounts during the Gallipoli and Palestine campaigns of the First World War. The book focuses on its namesake, the infamous and later adored Waler, Bill 'the Bastard', and his trooper Major Michael Shanahan, although this book is ultimately not a celebration of just one courageous soldier and his horse, but of the entire Light Horse. It follows Bill and Shanahan through Gallipoli and Palestine, and into their post-war life, when age and injury finally withdrew them both from service. With the end of the war, Shanahan returned to Australia with his wife Charlotte, with whom he had six children and to whom he was married for 28 years. He continued to ride until the age of 85, and lived on for a further ten years. As for Bill, it is believed that he escaped the knackery or the hard life of Cairo that was the fate of most war horses, and was given, unofficially that is, to an elder of a village near Suvla Bay. Today, a life-sized bronze statue stands in Murrumburrah, depicting Bill carrying Shanahan and four other men to safety during the Battle of Romani.

On the whole, *Bill the Bastard* is a fairly lighthearted story, considering the often bloody subject matter it deals with, as it is told with humour rather than being a dry and purely factual history. Incorporated into the narrative are occasional stories of individual men and women that, while not strictly relevant, add insight into life as an Australian soldier. Many readers may have some reservations about this mixing of facts and figures with personal stories, but it does provide a realistic idea of what those serving actually experienced. One does begin to wonder, however, how many of these snippets are fictitious, in this non-fiction work. That aside, such additions certainly help to elevate the book, making it a more intricate, personal story, accessible to a wider audience and providing insights that would not be available in more academic-style histories.

Perry's book is filled with entertaining, genuine and likeable Australian servicemen and women who often strive to make the moral best of a difficult situation, endearing the reader to the soldiers that this book so successfully celebrates. Alongside them, Perry recognises the role of Australian horses, the Walers, which were crucial to the success of the Light Horse. It is touching to read of the relationship between those horsemen who became soldiers and their mounts in war, and pleasing to see a book that acknowledges just how crucial horses were to the war effort. The Australians are painted as the heroes of the campaign, displaying fierce courage, morality and skill as soldiers, as well as being unparalleled horsemen riding unparalleled horses. The book thus serves as an interesting reminder of an age lost, a style of war now forgotten and the mateship that once existed between soldier and horse.

Despite its compelling narrative, *Bill the Bastard* at times sits awkwardly in an odd middle ground. It is not pure history that provides a detailed and accurate account of the Anzac war efforts. Nor is it light historical fiction that tells the story of men at war. Fortunately, this is a middle ground that will undoubtedly suit many readers well, particularly those looking for a story-like tribute to the Anzacs that also provides accurate names and dates. For serving professional military officers, this book may appear to offer little of relevance. Yet this is only partially true for it also highlights the enduring ideals of bravery, morality and personal triumph that are integral to the Australian military ethic, no matter the age. While not exceptional, this is a fine contribution to the Anzac legend and many will no doubt find *Bill the Bastard* a worthwhile read. ■

BOOK REVIEW

Rebel Rulers: Insurgent Governance and Civilian Life During War

Zachariah Cherion Mampilly, Cornell University Press, Ithaca and London, 2011, ISBN 9780801449130, 320pp, RRP US\$45.00

Reviewed by Lieutenant Alexander Ryrie, Australian Army

This is an ambitious book which aims to shed light on the poorly researched subject of insurgent governance during time of war. The central argument of the book is that insurgent governments should be recognised by the international community lest the many civilians who are subject to this government will be neglected by that same international community in what may be a time of dire need. Mampilly argues his case through the analysis of three insurgencies: Sri Lanka's Liberation Tigers of Tamil Elam (LTTE), the Sudan People's Liberation Movement/Army (SPLM/A), and the *Rassemblement Congolais pour la Democratie-Goma* (RCD-Goma). Throughout the book Mampilly investigates the nature and features of insurgent governance. His fieldwork and research describe how contemporary insurgencies have controlled large territories for extended periods of time, establishing extensive governmental structures and practices through which they have ruled major portions of the civilian population.

Through his examination of each insurgency Mampilly identifies the differences in the governance systems developed, and the unique factors that shaped the governance structures within each conflict.

Mampilly's central argument is that regions that are under the control of insurgent governments are not necessarily anarchic badlands, and that to ensure the welfare of the civilians living within these areas the international community needs to recognise the governance structures and organisations established by the insurgent groups:

By denying the existence of political order within rebel-held areas and refusing to offer a meaningful pathway to recognition based on civilian treatment, the international community is taking a position that essentially abandons large areas of the map, too often to the detriment of civilians living within.

The author goes to great lengths to describe the governance structures established by the insurgents in all three conflict areas; however he spends little time suggesting what the international community should do once it recognises the insurgent government. This lack of analysis of how international recognition would improve the lot of the average civilian living in an insurgent-controlled area is, I believe, a major flaw in this book. Mampilly uses his book to describe a problem but fails to suggest a solution.

While this work is clearly aimed at government policy developers and academics, certain chapters would clearly be of interest to the military commander. It is widely accepted that the population should be the focus of any counterinsurgency campaign. Through understanding how these various insurgencies interacted with the local populations many lessons can be learnt which could be put to use in future campaigns that exhibit similar characteristics to those Mampilly analyses. The author's most important finding is that each insurgency is unique and shaped by individual external and internal factors which must be understood within the context of the conflict.

Overall, this book is hard work for the amount of knowledge that it imparts to the reader. Written in very academic prose, it is hardly a leisurely read and, as a reference guide, it is not overly useful as the structure is at times chaotic. In saying this it remains an interesting work which is worth reading for the light it sheds on an important subject that is yet to be adequately explored. ■

BOOK REVIEW

One False Move, Bravest of the Brave: The Australian Mine Defusers in World War Two

Robert Macklin, Hachette, 2012, ISBN 9780733627941, 384pp,
RRP AUD\$35.00

Reviewed by Warrant Officer Class One Wayne Schoer, Australian Army

As a long-serving member of the Explosive Ordnance Disposal (EOD) community and a student of our history, I was anticipating a good read and the possibility of filling some gaps in my knowledge of the roots of the trade. The opening chapters of *One False Move* deal with some background details on the main players, what they were doing when World War II was declared and their actions to enlist soon after. It was interesting to note that all of these men displayed some level of mechanical aptitude from an early age and this is still a common thread among members of the EOD community today.

It doesn't take long to get to the nub of this story. Working with absolutely minimal training, basic equipment, most of which was fashioned on the spot for specific tasks, and initially no reference material, the men used their newly developed skills to render safe all manner of explosive device deployed in and around the British mainland and sea channels.

Initially working in isolation and with only a driver to assist with note-taking, the men travelled around Britain responding to reports of the discovery of unexploded ordnance. Many paid the ultimate sacrifice and lost their lives attempting to render safe newly developed and highly sophisticated devices of which they had no prior experience. The detailed notes taken describing every step of the procedure provided the only guide to the next eager volunteer to deal with that type of device.

Often these new devices were 'booby trapped' with anti-withdrawal mechanisms fitted in the mine which caused the ordnance to detonate on any attempt to remove the fuse. The mines belonged to a broad variety, ranging from magnetic influence, time delay and acoustic initiation, and each type required specific procedures and tools to render it safe. As the war progressed Germany's top scientists continued to improve the designs for both mines and fuses and thus it was vitally important to record every step of a procedure on new types of ordnance that were discovered. An important aspect of the work of these men was to recover these new forms of ordnance so that technical experts could prise them apart, learn how they worked and devise procedures to deal with specific devices.

The men worked on dry land and in shallow water through the early years but soon realised that the threat of mines was just as significant in the shipping lanes that surrounded England. Accompanying this realisation was the need not only to learn to dive, but also to develop a sound understanding of diving medicine and an extensive knowledge of diving equipment and procedures.

The task of bomb disposal is extremely arduous on land — the added complications presented by tides and deep water compounded their task and added exponentially to the level of risk. Often the water was murky with little visibility and the danger of tidal speeds and diving-related medical problems remained uppermost in their minds.

The murky water effectively removed the major sense used by bomb disposal personnel — eyesight. This forced these brave men to perform their tasks by feel alone. Imagine being in ten metres of murky water with absolutely no visibility and having to deal with a 1500-kg anti-ship mine by touch alone!

Twelve months after the D Day landings that drove the Germans from the channel ports the teams moved across to the continent where they commenced the clearance of the vital port facilities required by the Allies. Initially they had to fight with the hierarchy who had given the port clearance tasks in France to the United States (US) Navy teams. After some ingenious intelligence-gathering from the Aussies, gleaned mainly from a drunken German officer who, as it turned out, had been involved in the mining of the harbours, the boys began work locating, identifying and disposing of the dangerous explosive devices.

Initially they cleared Cherbourg and the Normandy coastline, eventually clearing other places with very familiar names such as Antwerp, Calais, Dieppe and Boulogne. At the same time other Aussies were operating in India, while the US Navy had also requested two members to assist with clearance operations in the South West Pacific Area supporting the US military island-hopping campaign towards their ultimate target — Japan.

Many of the men were demobilised during late 1945 and began going their separate ways. Most returned to Australia within months of the war's end but some lingered in Europe continuing the clearance operations.

While the initial four remained in contact through the post-war years they rarely met until the Queen's Coronation in 1953 when, having been awarded George Cross for their bravery, they invited to London as part of the celebrations. This was the first time that the four men had been together since the early days of the war and they were regaled by the establishment that was HMS *Vernon*, the home of the Mine Busters.

These courageous men all died of natural causes through a range of illnesses until the last of this unique group passed away in 1994 and was accorded full military honours at his cremation. These four were the only Australians at the time to receive the George Cross, second only to the Victoria Cross in recognising extraordinary courage. Wartime secrecy meant that their deeds were not widely known outside the military EOD community that followed in their footsteps and this book justly praises these four pathfinders and their exploits through a turbulent time in world history.

I highly recommend this book to all serving and ex-serving members of the Bomb Disposal and EOD communities and to all who value the lessons of history and the stories of brave but very modest men. ■

BOOK REVIEW

Architecture in Uniform: Designing and Building for the Second World War

Jean-Louis Cohen, Canadian Centre for Architecture in association with Yale University Press, New Haven, 2011, ISBN 9782754105309, 447pp, RRP US\$50.00

Reviewed by Professor Peter Stanley, University of New South Wales, Canberra

Design defines much of the essence of the Second World War. The distinctive appearance of Lancasters, Ju88s or Mustangs; of Panthers, Shermans and Jeeps; of the helmets of the combatant nations, German, American or Soviet, express the essence of the war as we know it from photographs, films and museum collections. This book examines some of its designs and those who created them, giving the Second World War its look. It specifically explores the buildings and other objects created by architects whose appearance is integral to the way we understand the war — V1 rockets, Flak towers, Nissen and Quonset huts; the huge bunkers of the Atlantic wall. French architectural historian Jean-Louis Cohen created an exhibition at the Canadian Centre for Architecture, Montreal, in 2011. This, the vastly enlarged book of the exhibition, provides an illuminating examination of the role and significance of a broad range of the architectural and design professions in wartime Europe, North America and Japan.

Cohen argues that, as well as destroying great swathes of Europe and Asia, the Second World War provided an opportunity for the development of new architectural ideas, materials and techniques on an unprecedented scale. He demonstrates how many of the combatant nations employed architects as central producers of war economies and efforts. While the weapons made in their factories bombed enemy cities, architects planned new cities, from the vast green-field site of Oak Ridge, Tennessee (home of part of the Manhattan Project) to idealistic urban renewal in Britain to the vast new German cities planned by Albert Speer. In Britain and the United States (US) especially the need for new housing stimulated architects to experiment with modular, pre-fabricated or mobile housing, developing approaches that decisively changed urban architecture post-war.

Cohen's range is exemplary, taking in wartime camouflage and air raid shelters, the creation of factories (underground and overground) flak towers, wartime exhibition design and information presentation; even the design of concentration and extermination camps. He shows how the stress of war stimulated a great fertility of creative and technical expertise in which designers and architects introduced new forms, materials and methods, often working under extreme stress. The scale of their enterprise is astonishing. In the US especially, the creation of huge manufacturing plants (some the size of small cities in themselves) demanded the development and introduction of materials and methods impossible a decade earlier. One of these plants — the Pentagon — remains at the core of the US' military-industrial complex. In all this architects were central. All the combatant powers employed them — in the US Navy's Seebees (CBs — Construction Battalions) there were over a thousand, and they took full advantage of the opportunities the war brought to make as well as break the material world.

The book's focus is thematic, enabling Cohen to make comparisons between national approaches to common problems and needs — comparisons of factories in the US and Germany and war memorials in several belligerent nations are particularly illuminating. But the approach limits Cohen's ability to explore the distinctive national approaches. It remains a source of wonder why Germany, arguably the most restricted nation intellectually, produced perhaps the most innovative and attractive designs of aircraft, vehicles and weapons such as the V1.

While Cohen's scope appears uneven — he deals with the Bailey bridge but not the vehicles that used it; with aerodromes and anti-aircraft emplacements but not aircraft — *Architecture in Uniform* remains a highly informative and often striking book. Some of his subjects strain the theme: for example, a fascinating section

deals with Norman Bel Geddes's vast collection of silver miniature ships, enabling him to recreate the battle of Midway for *Life Magazine*, though what this adds to the understanding of wartime design is unclear. Other seemingly irrelevant subjects turn out to be highly pertinent. The celebrated court at Nuremberg, for instance, was not fitted out haphazardly, but was carefully designed by an architect (admittedly, a landscape architect) assisted by no fewer than 30 designers, creating the scene of one of the war's most profound legal dramas.

Arising from an exhibition, *Architecture in Uniform* reflects its origins in both its numerous short sections, highly readable though precluding much detail, and its many high quality images, often of actual objects. Despite its sometimes esoteric prose and screeds of close-set references, *Architecture in Uniform* is an absorbing book which can be appreciated at several levels. The range and quality of its hundreds of illustrations, many in colour, alone make it a rewarding book. In detail, it raises questions about how a profession was used, but also how it used the war to advance its imagination and its production. Cohen makes no reference to Australia: what effect did Australian architects have on its war effort, and how did the war enable them to imagine and create? ■

TITLES TO NOTE

Humanism & Religion: A Call for the Renewal of Western Culture

Jens Zimmermann, Oxford University Press, New York, 2012,
ISBN 9780199697755, 392pp, RRP US\$150.00

The question of who 'we' are and what vision of humanity 'we' assume in Western culture lies at the heart of hotly debated topics on the role of religion in education, politics and culture in general. The West's cultural rootlessness and lack of cultural identity are also revealed by the failure of multiculturalism to integrate religiously vibrant immigrant cultures. Jens Zimmermann contends that the main cause of the West's cultural malaise is the long-standing separation of reason and faith. *Humanism & Religion* suggests that the West can re-articulate its identity and renew its cultural purpose by recovering the humanistic ethos that originally shaped Western culture. *Humanism & Religion* traces the religious roots of humanism from patristic theology through the Renaissance and into modern philosophy, examining the original correlation of reason and faith. Zimmermann combines humanism, religion and hermeneutic philosophy to re-imagine humanism for our current cultural and intellectual climate. Zimmermann has undertaken this investigation in the hope that it will encourage, once again, the correlation of reason and faith in order to overcome current cultural impasses.

Anti-Access Warfare: Countering A2/AD Strategies

Sam Tangredi, Naval Institute Press, Annapolis, 2013,
ISBN 9781612511863, 320pp, RRP US\$47.95

Anti-Access Warfare is the first book to examine the concept of anti-access and area-denial warfare. Tangredi has approached this concept, often referred to by its acronym, A2/AD warfare, from its naval roots in a way largely ignored by the even most influential commentators. Tangredi argues that, while the US has identified A2/AD as the strategy of choice for its enemies into the future, the concept itself is poorly understood. While ostensibly a post-Cold War era technology-driven phenomenon, Tangredi traces the historical roots of A2/AD warfare to reveal its true nature as a routine element of the grand strategy of weaker powers against stronger ones. Rather than arguing against a reliance on maritime forces like many commentators, presumably because these forces are no longer regarded as survivable in the era of advanced stand-off defences, Tangredi uses historical analysis to present maritime forces as a key to 'breaking the Great Walls' of nations such as Iran and China.

Shadows of ANZAC: An Intimate History of Gallipoli

David Cameron, Big Sky Publishing, Newport, 2013,
ISBN 9781922132185, 352pp, RRP AUD\$ 29.99

Shadows of ANZAC presents a unique international perspective of the ANZAC experience at Gallipoli. The stories that comprise this handsome and varied collection are told by protagonists both from the Allied nations — Australian, New Zealand, British, Indian — and from the ranks of the Turks who were defending their homeland. David Cameron achieves a holistic representation of the conflict through the use of primary and secondary sources and the experiences of combatants and civilians alike. An intensely personal collection, *Shadows of ANZAC* paints a vivid picture of the daily struggle on the peninsula, highlighting the absurdity, monotony and humour that sat alongside the horror of the campaign.

War From The Ground Up

Emile Simpson, Scribe, Melbourne, 2013, ISBN 9780231704069, 256pp, RRP AUD\$55.95

Drawing on personal experience and a collection of little-known case studies ranging from Nepal to Borneo, *War From The Ground Up* offers a distinctive take on contemporary armed conflict. While most accounts of war peer down at the battlefield from an academic perspective, or across it through personal narrative, Simpson looks out from the battlefield to consider the concepts that led to the conflict and how they played out on the ground. The author argues that, in contemporary conflicts, liberal powers and their armed forces have blurred the line between military and political activity. They have challenged the distinction between war and peace. Simpson contends that this loss of clarity is more a response to the conditions of combat in the early twenty-first century, particularly that of globalisation, than a deliberate choice. The issue is therefore not whether the West should engage in such practices, but how to manage, gain advantage from, and mitigate the risks of this evolution in warfare. *War From The Ground Up* draws heavily on personal anecdotes from the front line, related to historical context and strategic thought, to re-evaluate the concept of war in contemporary conflict.

Broken Nation: Australians in the Great War

Joan Beaumont, Allen & Unwin, Sydney, 2013, ISBN 9781741751383, 656pp, RRP AUD\$55.00

Broken Nation skilfully blends all facets of the First World War into a single story. Combining the plight of the fighting soldier with the impact of the war on the Australian home front, Joan Beaumont paints the broad canvas of Australian life during the war that many believe defined the nation. Stories of famous battles such as Gallipoli and the Somme sit alongside those of lesser known battles in both Europe and the Middle East and the impact of these campaigns reverberates against the Australian backdrop with its conscription debate and the first signs of the Spanish flu brought home by returning servicemen. Beaumont describes the fear and courage, both at home and in the theatre of conflict, engendered in the people of the fledgling Australian nation by the immense tragedy that was the First World War.

SIPRI Yearbook 2013: Armaments, Disarmaments and International Security

Stockholm International Peace Research Institute (SIPRI), Oxford
University Press, Oxford, 2013, ISBN 9780199678433, 584pp, RRP £100

The Stockholm International Peace Research Institute (SIPRI) is an independent international institute dedicated to research into conflict, armaments, arms control and disarmament. SIPRI provides data, analysis and recommendations based on open sources to policymakers, researchers, media and the interested public. The 44th edition of the *SIPRI Yearbook* analyses developments in 2012 in the areas of security and conflict, military spending and armaments, non-proliferation, arms control and disarmament. In addition to analysis from its contributing researchers, the *SIPRI Yearbook* also contains extensive annexes on the implementation of arms control and disarmament agreements and a chronology of events during the year in the area of security and arms control. Purchasers of the print edition will also be able to access the *Yearbook* online.

Investment in Blood: The True Cost of Britain's War in Afghanistan

Frank Ledwidge, Yale University Press, New Haven, 2013,
ISBN 9780300190625, 270pp, RRP US\$54.95

In his follow-up to *Losing Small Wars: British Military Failure in Iraq and Afghanistan*, Frank Ledwidge argues that Britain has paid a heavy price in financial and human terms for its involvement in the war in Afghanistan. Based on interviews, rigorous onsite research, and official information obtained through the Freedom of Information Act, Ledwidge examines the price paid by British soldiers and their families, taxpayers in the UK and Afghan citizens, highlighting the thousands of deaths and injuries, and the enormous amount of money spent bolstering the Afghan government. He also investigates the long-term damage to the British military's international reputation, yet another cost of the protracted campaign.

Fallujah Awakens: Marines, Sheiks, and the Battle Against Al Qaeda

Bill Ardolino, Naval Institute Press, Annapolis, 2013,
ISBN 9781612511283, 320pp, RRP US\$36.95

Based on more than 120 interviews with Iraqis and US Marines, Ardolino describes how a company of Marine reservists, in an unlikely alliance with local tribal leaders, succeeded where previous efforts had stalled and helped to secure Fallujah against the reinvigorated insurgency during the rise in Al Qaeda-led violence in 2006. An exhaustive use of documentation, complete with maps and photographs, allows *Fallujah Awakens* to enhance the reader's understanding of the struggle for this iconic city.

Carrier Attack Darwin 1942: The Complete Guide to Australia's own Pearl Harbour

Tom Lewis & Peter Ingham, Avonmore Books, Kent Town, 2013,
ISBN 9780987151933, 368pp, RRP AUD\$49.95

When the Pacific War erupted, few could have predicted the extraordinary scale and ferocity of the 19 February 1942 raid on Darwin. A massive strike force, blooded at Pearl Harbor just weeks before, hit Darwin in the biggest Japanese air attack ever launched in the South Pacific. Since then, generations of Australians have been drawn to the stories and folklore of the Darwin action. But facts have blurred and mythology has thrived. *Carrier Attack* tests many Darwin myths and reveals new information: another ship sunk; the actual intent and nature of the attack; the precise extent of the Japanese losses. The Darwin raid is usually portrayed as a wholesale disaster for the Allies, and a day marked by military ineptitude. *Carrier Attack* shows that the defenders were alert and fought with purpose. Arguably it was the Japanese who wasted much of their attacking strength, allowing the Darwin defenders to avert a much larger catastrophe. *Carrier Attack* provides a timely and fresh analysis of the raid drawing on both Allied and, importantly, specifically translated Japanese sources.

Digger's Story: Surviving the Japanese POW Camps was Just the Beginning

David Barrett & Brian Robertson, Five Mile Press, Scoresby, 2012, ISBN 9781743007426, 254pp, RRP AUD\$32.95

Digger's Story is a never-before-told account of a young medical orderly taken prisoner by the Japanese in Malaya and sent to Changi prison. *Digger's Story* is an account both of life as a prisoner of the Japanese during World War II and as an ex-prisoner of war following liberation. The story begins with a description of the horrors of the Thai-Burma railway including the need for a medical orderly to step forward and take on the responsibilities of a surgeon to ensure his mate's survival. The story moves to the progress of Australian post-war race relations, the cataloguing of Allied graves on the Thai-Burma railway for the War Graves Commission and the story of the Australian Reparations Committee. *Digger's Story* provides a new perspective on the lives and struggles of Australian prisoners of the Japanese, both during and after World War II.

Hell on Earth: Sandakan – Australia's Greatest War Tragedy

Michele Cunningham, Hachette, Sydney, 2013, ISBN 9780733629891, 352pp, RRP AUD\$35.00

Sandakan is acknowledged as one of the greatest military tragedies in Australia's history. Following the fall of Singapore almost 3000 Allied prisoners of war, including 1500 Australians, were taken from Changi to Sandakan Prison Camp. Michele Cunningham has utilised archival research in Australia and Britain and interviews with survivors of the Borneo campaign, as well as access to previously overlooked Japanese sources, to present a broad view of the events at Sandakan Prison Camp and the subsequent 'death marches' to prevent the prisoners' liberation by advancing Allied forces. *Hell on Earth* is a story of bravery, brutality and survival, which describes in some detail the events surrounding this wartime tragedy.

The Unknown ANZACS: The Real Stories of our National Legend

Michael Caulfield, Hachette, Sydney, 2013, ISBN 9780733629327, 320pp, RRP AUD\$50.00

A timely publication as we approach the 100th anniversary of the First World War, *The Unknown ANZACS* aims to present an authentic portrait of Australians fighting and living through the bloodiest conflicts of the war. Using excerpts from diaries that had been collected at the Mitchell Library in Sydney since 1918, Michael Caulfield has created a previously untold account of a young country at war. His book covers all the major theatres of the war and the stories are told in the words of the men and women who experienced them. *The Unknown ANZACS* breathes new life into the stories of Australians fighting in the First World War presenting them to a whole new generation for whom they are the stuff of legend. ■



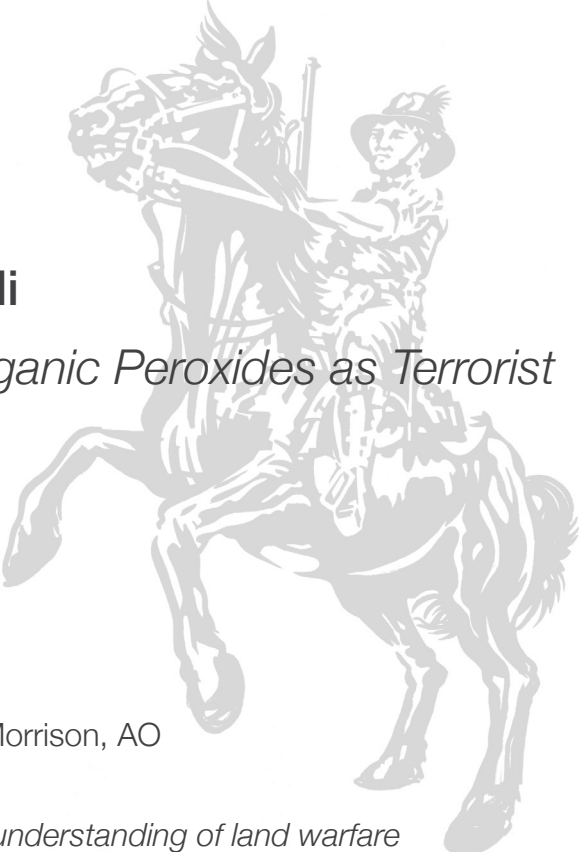
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The editors of the *Australian Army Journal* welcome submissions from any source. Two prime criteria for publication are an article's standard of written English expression and its relevance to the Australian profession of arms. The journal will accept 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, dfw.publications@defence.gov.au. For more information see www.army.gov.au/Our-future

Please make sure your submission includes the following details:

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Please also include the following fields in your submission:

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

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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 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:

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- Conclusions that you have reached, and if relevant, any recommendations.

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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. ■