

ARMY TRANSFORMATION

The recent recommendation in the Gray Report, adopted by the last Government, to hold a defence review once in every parliament is to be welcomed and will make sure that we never again have a 12-year gap between one and the next, as we have had since 1998. The US quadrennial reviews have much to recommend them, but the 2010 Australia Review would seem to face some of the problems that UK will have to tackle this year. Dr Andrew Davies says that it is almost something of a tradition in Australian Defence White Papers to focus heavily on air and maritime forces, with land forces appearing almost as an afterthought. There are those in UK who think the same about our approach. Does Australia have lessons for us in managing such a problem?

The Australian Army: Small but Adaptable

by *Dr Andrew Davies*

Andrew Davies is the Director of the Operations and Capability programme at the Australian Strategic Policy Institute in Canberra. In this article he considers the current and future concepts and equipment of the Australian Army, particularly armour artillery, armoured vehicles and aviation, and believes that, before the next Defence White Paper in 2014, more thought about the future of the Army is required.

It is almost something of a tradition in the development of Australian Defence White Papers to focus heavily on air and maritime forces designed to secure the approaches to the Australian continent, with land forces appearing almost as an afterthought. So it was when the most recent White Paper appeared in 2009.¹ Most of the subsequent headlines reflected a strong maritime emphasis, and remaining interest was centred on speculation as to when the decision on acquisition of the Joint Strike Fighter (JSF) would be made.

The Paper explicitly states that the Army will retain its current shape and that “no major change to the size and structure of the Army is warranted”. Meanwhile, the Australian Army was entering its ninth consecutive year of land operations in the Middle East and Afghanistan, and was still providing stabilisation forces in the nearby Solomon Islands and Timor-Leste. One Australian defence writer observed that the Australian Army “will end up doing more of the hard work, but on the least money”.

However, despite the apparent low priority of the Army in the government’s strategic calculus, there are some interesting changes afoot for the Australian Army, in terms of both its own organisational structures and some imminent equipment acquisitions. And it will also have a lot of work

to do to make sure that it is capable of making the best use of the greatly expanded amphibious lift capability that will come on line when two 27,000-tonne *Canberra* class Landing Helicopter Dock (LHD) vessels are delivered around the middle of this decade.

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Land Force Concepts

With over 27,000 permanent and almost 16,000 part-time Reserve personnel, the Australian Army is not a large force. It is small by Asian regional standards and tiny given the size of the Australian continent. It is structured as a standing force rather than a mobilisation base, and is designed to be able to deploy and sustain a brigade group of around 3000 troops indefinitely, while retaining the capacity to deploy an additional battalion group of around 1000 temporarily. Larger-scale deployments are possible for a limited duration – Australia deployed over 5000 troops as part of the International Force for East Timor (INTERFET) in 1999.

At its core, the permanent Australian Army is currently made up of five infantry battalions, two cavalry regiments, one armoured regiment, one commando regiment and a Special Air Service regiment. In order to increase the Army’s ability to deploy and



The Army's 33 Black Hawk helicopters will be progressively replaced by Australian-assembled NATO Helicopter Industries' MRH-90 (the Australian designation for the NH-90) from 2011 [Australian Army]

sustain forces, two additional battalions are being added under an Enhanced Land Force programme initiated by the previous Australian government and confirmed in last year's White Paper. This will see the full-time Army expand to around 30,500 personnel by early next decade. These troops are supported by one aviation brigade, three artillery regiments, one combat engineer regiment and one air defence regiment, plus a comprehensive range of logistic support elements.

In reality, many of the elements established as regiments are actually of a smaller scale. But it is not envisaged that Australian Army formations will deploy as regiments. Instead, the concept is that elements of various combat and combat support units will be tailored into reconfigurable combined-arms 'battlegroups', commanded by battalion/regiment level headquarters, as mission needs dictate.

In 2005, the Army launched a Hardened and Networked Army (HNA) programme, which reflected the battlegroup concept aimed to re-equip the force with better firepower, armoured mobility and networked communications. The HNA programme aims to structure and equip the Army so it can "fight in complex terrain and contribute to coalition operations of up to medium intensity".²

More recently, the Army has published a conceptual framework for the force development of the Australian Army: 'Adaptive Campaigning – future land operating concept'.³ Seemingly heavily influenced by recent operations in Iraq and Afghanistan, it identifies several trends in modern warfare:

- Retreat [by adversaries] into complex terrain.
- Disaggregation of the battlespace.
- Readily transferrable highly lethal weapons.
- Less decisive combat operations.
- Battlefields that are more often urban settings than open terrain.

While the HNA and Adaptive Campaigning conceptual frameworks are at least partly consistent, it seems fair to observe that HNA applies primarily to the upper end of the spectrum of modern conflict described in the more recent document.

Hardened and Networked – but 'No Fallujahs'

In that context, it is interesting to note that, in one of the only exclusions in the entire document (the other being a nuclear submarine), the Defence White Paper ruled out with a very firm hand one class of land operations:

The government has decided that it is not a principal task for the Australian Defence Force (ADF) to be generally prepared to deploy to the Middle East, or regions such as Central and South Asia or Africa, in circumstances where it has to engage in ground operations against heavily armed adversaries located in crowded urban environments.

While this statement may be, at least in part, a political 'product differentiation' between the current Australian Government and its predecessor (which was incumbent when HNA was developed and was perhaps more sympathetic to the idea of participating in high-intensity coalition operations), it does pose some questions for the residual HNA projects still working their way through the acquisition system. For the time being, however, there appears to be no inclination to wind back any of the initiatives in train. The major components of the HNA programme are described below.

Armour

The 'hardest' element – and one with significant firepower – of the HNA is in the form of 59 refurbished Abrams M1A1-*AIM* tanks from the United States at a cost of A\$560M (£316M). The Abrams replaced the German Leopard tanks, which were judged to have become vulnerable due to the



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proliferation of shoulder-fired anti-armour weapons in Australia's region.

Although the Abrams is a far more capable platform than the Leopard, the transition involves a reduced number of vehicles. The 59 Abrams have replaced 101 Leopards, which in turn replaced 143 of their predecessor, the Centurion. Thus, while the technical sophistication of the Australian Army's armoured capability is now keeping pace with global developments, the scale of armoured support continues to decline.

Artillery

The Australian Army is in the process of refreshing its artillery capability. It currently fields over one hundred 105mm towed Hamel field guns and thirty-six 155 mm towed medium howitzers, both of 1980s' vintage. Both are due for replacement in the next few years. Like the armour, the replacements will be superior in quality but fewer in number. But as a considerable proportion of the current artillery pieces are not in use in any case, the actual deployable capability will not change appreciably.

The White Paper confirmed that the current towed howitzers will be replaced by around eighteen protected self-propelled 155mm howitzers, while the existing 105mm guns will be replaced by around thirty-six light-weight towed 155mm howitzers. A decision on the towed pieces has already been taken; fifty-seven M777A2 155mm Light-Weight Howitzers and associated support equipment will be acquired from the United States at an overall cost of US\$248M (£165M).

Unexpectedly (at least as far as outside observers were concerned) a decision on the self-propelled artillery has been deferred. The shortlist consists of the Krauss-Maffei Wegman's (KMW) PzH 2000 and the Samsung Techwin AS-9. It is not clear exactly why a decision has been deferred. A

possible explanation lies in the fact that the KMW system is more expensive than its Korean rival, but there has been discussion in Parliamentary hearings of Australia acquiring systems originally ordered for The Netherlands but now surplus to requirements – which could significantly lower the purchase price.

Armoured vehicles

The Army operates three types of armoured vehicle: the US designed M113 armoured personnel carrier; the Canadian-built ASLAV light armoured vehicle; and the Australian-designed Bushmaster infantry mobility vehicle.

The tracked M113 armoured personnel carrier has been in service with the Australian Army since 1965. Of the more than 700 vehicles in inventory, around 430 are being upgraded and returned to service, with improved armour, firepower, suspension, engine and drive train, at a cost of A\$617M (£317M). After a three-year delay, the first upgraded vehicles entered service in late 2007. Despite being the best protected of the three armoured vehicles in service with the Australian Army, the protection afforded by the M113 falls well short of a modern infantry fighting vehicle, particularly against the more sophisticated improvised explosive devices (IEDs) being encountered in Afghanistan (and formerly Iraq).

Following purchases that commenced in the early 1990s, the Army now has a fleet of 257 ASLAV light armoured vehicles. These 8x8 wheeled quasi-amphibious vehicles provide an armoured reconnaissance and personnel carrier capability sufficient to equip two cavalry regiments. Each vehicle can carry eight troops in the armoured personnel carrier variant or four in the gun variant, which is equipped with a turret-mounted 25mm gun. Protection for ASLAV occupants is inferior to that of the M113 due to increased vulnerability to light anti-armour weapons and ballistic projectiles.

Something of an Australian success story, the most recent addition to the Army's range of armoured vehicles is the Bushmaster infantry mobility vehicle. Over 300 vehicles have now been delivered out of an order of around 700. Each of the 4x4 vehicles is capable of carrying up to ten personnel. It was not designed as a fighting vehicle, and its single roof-mounted machine gun gives it inferior firepower to the ASLAV. It has inferior mobility over rough terrain compared to the M113 and ASLAV, but it provides similar protection to the ASLAV against small arms and, most significantly, superior protection from below against mines and IEDs. As such, it is well suited to patrolling work in a counter-insurgent environment and has been widely used by Australian and Dutch elements in Afghanistan. It has also been sold to the British Army.

Aviation

The Australian Army's air transport capability is in something of a state of transition at the moment. Currently comprising

thirty-three Black Hawk and six CH-47D Chinook helicopters, the former will be progressively replaced by Australian-assembled NATO Helicopter Industries' MRH-90 (the Australian designation for the NH-90) from 2011, while the D-model Chinooks will be replaced by seven F-models from 2014.

Both current types have been found wanting in terms of self-protection suites, and the deployment to Afghanistan has seen a programme implemented to provide both with an improved self-defence capability. Up to four of the Chinooks have been deployed to Afghanistan at any given time, while no Blackhawks have been deployed to date, with vulnerability to ground fire being cited as the reason.

Forty-one Kiowa light observation helicopters provide the Army with a flexible aerial reconnaissance capability. However, since the retirement of its last six Iroquois gunships in 2004, the Army has been without a dedicated aerial fire support platform. The replacement for both capabilities – 22 Eurocopter Tiger Armed Reconnaissance Helicopters (ARH) – was originally due to enter service in financial year 2004/05 but, due to a series of project delays, will not reach full operational capability until 2012.

The Australian Army has grappled with the concept of tactical unmanned aerial vehicles (TUAVs) but has been unable to reach a firm decision on the way ahead. A 2006 tender process selected the joint Israeli/Boeing IAI I-View 250A system with a wide range of payload options, but technical problems saw the project formally cancelled in late 2008. In the absence of an organically embedded TUAV, Australian forces in Afghanistan are using the short-range Skylark 1 systems from Elbit, and have contracted Boeing to provide ScanEagle services. This has allowed elements of the Australian Army to acquire considerable experience in the use of small TUAVs at the fire team/section level and more capable systems at the battlegroup/brigade level. However, there is still no identified solution for higher echelon UAV capabilities.

Current Shortfalls and Future Outlook

Generally speaking, the Australian Army's infantry weapons and equipment are of a similar standard to that of other advanced western armies. And, like many of their counterparts, operations in Afghanistan have highlighted some shortcomings. The response has been the rapid acquisition of some items, including specialist clothing, vehicle protection against IEDs and RPGs, body armour and man-portable Javelin anti-armour rockets. The agility of the Army and the Defence Materiel Organisation in response to these urgent operational needs has generally been commendable.

Longer-term structural capability shortfalls exist as well. Perhaps the most significant is the lack of modern ground-based air defence that can deploy integrally with land units. Following the retirement of the Rapier surface-to-air system in 2005, the Army's air defence capability now comprises

two batteries equipped with the Swedish short-range RBS-70 system. On current plans, a proposal to either upgrade or replace the RBS-70 system will be put to government in 2013. The future system will be required to be able to counter rockets, artillery and mortar rounds – suggesting that it too will be short-range in nature.

The development of an expanded amphibious capability will consume a significant amount of the Army's resources over the next few years. Currently, the naval amphibious capability is resident in two ex-US Navy Landing Platform Amphibious vessels, each capable of deploying around 450 troops with their vehicles and support equipment. The LHDs will have approximately twice the capacity. At the moment it is probably fair to say that the mindset of the Australian Army regarding deploying from the sea is that it is just another form of transport—one that has been used many times in the past to deploy to theatres around the world. More of a 'marines' approach to operations will be required to get the best from the investment being made in future capability.

Conclusion

The Australian Army finds itself in a curious situation in 2010. It has to find the resources to raise and train a significant amphibious capability. And, while doing so, it has to maintain a deployment in a dangerous and unpredictable environment on the opposite side of the world that is now in its ninth year, and maintain (and expand if necessary) ongoing stabilisation operations closer to home. Meanwhile, the capability development process is still working through the projects set in train in 2005 when HNA was the primary priority—an ambition somewhat at odds with the White Paper's prohibition on high-intensity land operations.

In many ways, this is par for the course for the Service. It has often played second fiddle in strategic documents while actually doing much of the work in the nation's deployments. It has always done so professionally and ably, but the disconnects identified in this paper have the potential to spread resources too thinly. The next Australian Defence White Paper is scheduled for 2014 – it would be a good time for the Australian Government to give some more thought to the future of its Army. ■

NOTES

- 1 Defending Australia in the Asia Pacific Century: Force 2030, Australian Government, Canberra, May 2009. Available at <http://www.defence.gov.au/whitepaper/>
- 2 The Hardened and Networked Army, Australian Government, Canberra, 2005. Available at http://www.defence.gov.au/update2005/defence_update_factsheet.pdf
- 3 Army's Future Land Operating Concept, Army Headquarters, Canberra, September 2009. Available at http://www.defence.gov.au/ARMY/docs/adaptive_campaigning-future_land_operating_concept.pdf