

**Let's test that idea—contestability of advice  
in the Department of Defence**

by Andrew Davies

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In 2007, a leading commentator on strategic affairs painted the following rather breathless picture for readers of the national newspaper<sup>1</sup>:

CONSIDER the following prospect. Two huge amphibious ships, each weighing 27,000 tonnes, each carrying a full battalion of Australian soldiers and then some, with more than 1000 soldiers on each ship. Each is also carrying a dozen Abrams tanks, as well as lighter vehicles and amphibious vessels for landing. Each has a fully equipped hospital in case there are casualties. Each also has eight helicopters, six for unloading troops and two for defending and supporting the ships.

The troop ships are escorted and guarded by three air warfare destroyers. Each of these is equipped with the US Aegis combat system, the most advanced naval combat system in the world. Each has a phased array radar that enables it to engage and destroy hostile aircraft at a range of more than 150km. Each of these destroyers, at a modest size of 6250 tonnes, has 48 separate missile cells. Each is also equipped with advanced sonars for anti-submarine warfare.

They also have harpoon missiles for anti-ship warfare and they have five-inch guns that can fire extended range munitions in support of our troops once they land.

This convoy is given air cover by 100 joint strike fighters, or F-35s. They are masters of stealth and advanced detection. The aircraft are supported by Wedgetails, mistakenly called spy planes but in reality giant electronic networking command and control planes that make sure that an enemy aircraft is destroyed long before it becomes aware of its Australian opponents.

The Wedgetails, the F-35s, the destroyers, the amphibious ships and the commanders of the land force are all networked into the giant US-based satellite and electronic intelligence system, which detects any movement or communication of any potentially hostile force the second it happens.

Finally, Australia's quiet, immensely capable Collins class submarines have gone in close to the destination point and landed Special Air Service troopers, the best small-unit infantry forces in the world, to prepare the way for the larger Australian party to follow.

There are a few questions that immediately come to mind about this scenario:

- Where is the ADF going?
- What will they do when they get there?
- What sort of opposition to this operation is envisaged?

Anyone who has an interest in military affairs would be able to add a few more:

- Where will the aircraft operate from once the armada passes beyond the reach of land-based air power (or is the middle of the Indonesian archipelago the absolute limit of our geographic ambition)?
- What problem has as its solution 2,000 troops deployed on a foreign shore at the end of a long supply chain?
- How will the rate of effort described here be sustained?
- How did the ADF manage to field its entire inventory of major platforms simultaneously?

In fact, rather than underlining the depth and breadth of Australia's armed forces, the article unintentionally illustrates the modest overall capability of the ADF. The deployment described in this article might be suitable for seizing and holding—for a time—a port and/or airfield near the coast of a regional country. To be sure, this is a capability that could, in some circumstances, be useful to the government. It might, for example, allow for a Services-protected evacuation of threatened civilians in the event of local conflicts or the breakdown of law and order. But it would be difficult to sustain the rate of effort for an extended period, and the prospects of success would be questionable if there was concerted opposition from other forces.

The author does not misrepresent the thinking that has underpinned the development of the ADF's force structure. The article closely mirrors public statements made by government<sup>2</sup> and military officials<sup>3</sup> during the tenure of the previous government, and there is nothing in the current Defence White Paper that suggests a narrowing of the gap between ambition and the realities of raising and sustaining capabilities that are well suited to the ADF's likely tasks. For example, when the Defence White Paper is mandating that the Army is to be developed for regional deployments, and specifically *not* for urban combat operations in the Middle East, why then are plans to spend a billion dollars on artillery and the hardening and networking of the Army continuing apace?

To give another example, there is a focus on the acquisition of land-attack cruise missiles in the White Paper. The argument is made that such a capability would 'provide the Government with additional options to conduct long-range precision strike operations against hardened, defended and difficult to access targets, while minimising the exposure of ADF platforms and personnel to attack by enemy forces'. That is all true—but the questions have to be asked 'which targets' and 'what effect can we hope to achieve'?

We can look at recent conflicts against Iraq (a moderate military power) in 2003 and Serbia (a weak power) in 1999 as examples. Both countries were subjected to intense attack using a large amount—far more than the ADF could hope to deliver—of precision weaponry. The rate of effort required in each case was enormous. Iraq came under sustained attack but the regime collapsed only when the country was occupied. 1,000 NATO aircraft flew 38,000 sorties over three months against Serb targets and, despite that, the contribution of air power in deciding the outcome of the conflict is still debated today. (A strong case can be mounted that the air campaign was less effective in forcing a backdown than was the imminent threat of land operations.)

So what would Australia gain by establishing the capability of delivering a relatively small number of land-attack cruise missiles? In a region where our economic and

military advantage is being steadily eroded, the conclusion is inescapable; Australia will not have the strategic weight to do anything more than annoy even a moderate power. We will have nothing like the power projection capabilities that the United States or NATO can bring to bear, and the problem of reach only exacerbates the difficulty of delivering decisive blows.

If the strategic ambitions evidenced by successive Defence White Papers were the real drivers for defence acquisitions and appropriations, we would actually be spending *more*, in order to get real combat weight and sustainability. ASPI's own analysis suggests that at least another 1% of GDP would be required to generate serious force projection capability.<sup>4</sup> The same analysis strongly suggested that we are acquiring capabilities in numbers that result in modest capabilities with high fixed costs, and are failing to take advantage of the economies of scale that would result from building larger and more capable forces. A reasonable deduction from those observations is that something other than strategic logic is driving our decision making.

### **What motivates force structure decisions?**

The land-attack cruise missiles are not the only example of a defence acquisition that fails the test of logic. But they are found in the inventories of the United States and United Kingdom—a clue that helps to explain their attraction. In many ways, our armed forces are currently structured to allow each Service to maintain most of the components that are found in the forces of major powers, whether or not the numbers we have are sufficient to achieve strategic effects.<sup>5</sup>

This obviously begs the question as to how this state of affairs has come to be. Part of the answer lies in history—as ASPI has previously argued,<sup>6</sup> our relative economic (and thus strategic) weight was such that we were able to ensure our security in a relatively weak neighbourhood by fielding a suite of advanced capabilities that other countries could not match. But that argument does not carry as much weight looking forward. A more complete answer has to take the motivations of the individual Services into account. A 1987 RAND Corporation report prepared for the US Army contains some interesting observations.<sup>7</sup> The report found that each Service is shaped by its own values and priorities, and that these differ markedly:

- Navies most value the independent command of ships at sea. For this reason, they are more concerned about numbers than the other Services, and regard the number of hulls as an important measure of organisational health. (An interesting corollary of the value placed on command at sea and associated naval tradition is the very strong navy-to-navy relationships that exist between some countries, especially the historically-related British, American and Australian navies.)
- Air Forces, on the other hand, value the high-technology that has bestowed on them the gift of flight. Given a choice between numbers and a new generation of flight-related technologies, air forces will opt for the latter.
- Armies are even less concerned with numbers, and are accustomed to expanding and contracting—sometimes to an extraordinary degree—with the circumstances of the nation that supports them. Instead, armies value the professional mastery of combined arms and manoeuvre. This manifests itself in a desire to maintain infantry, armour, artillery and other specialities.

These observations go a long way in explaining both the remarkable resilience of force structures and many individual decisions made over the years—indeed, it is hard to find counter-examples. Rather than emerging from an unarguably rigorous and logical process designed to identify the most advantageous strategic outcomes for our not inconsiderable defence outlay, the favoured force structure options may in fact simply reflect the organisational preferences of the Services.

Seen in this light, the planned acquisition artillery (a capability not deployed for almost forty years) and the adherence to tanks (also not deployed since the early 1970s) within Army makes more sense. Similarly, Air Forces here and elsewhere have dwindled in size steadily over the decades, moving to later generations of more complex (and much more expensive) aircraft. Navies have also declined in size, but to a lesser degree, and debates on naval capabilities are often couched in terms of the number of hulls.

None of this should be surprising. All organisations have their own ethos and values. And, in the case of the military Services, their internal values and traditions are remarkably successful in allowing them to function at a high level of effectiveness in profoundly difficult circumstances—something that the nations supporting them should be grateful for.

But the same values and traditions may in fact become obstacles when hard transformational decisions need to be made, or when cost-effective delivery of military options to government is the issue. Organisational group-think can be very powerful. While it is not impossible for organisations to generate truly new ideas that are at odds with well-established values and practices, it often requires external input, or at least internal processes that allow for genuine contestability. Australia's current capability development process has some serious weaknesses in this respect.

### **The capability development process today...**

As described in the Defence Capability Development Manual 2006,<sup>8</sup> the capability development cycle is divided into five phases, the first two of which are pertinent to this discussion:

1. **Needs**—capability gaps, derived from consideration of strategic guidance, current and future operational concepts, future technology and the current and emerging force structure, are identified by Defence. Government endorses the need to address the identified gaps and approves the inclusion of a project with an indicative budget provision in the Defence Capability Plan (DCP);
2. **Requirements**—each capability need endorsed by Government is transformed progressively into a costed, defined solution to that need, and approved by Government with a schedule ... and budgetary provision to both acquire the capability solution and to fund through-life personnel and operating costs;
3. **Acquisition...**
4. **In-service...**
5. **Disposal...**

Note the terminology here; the government does not 'consider' or 'examine' or even 'decide upon' proposals. Instead, its role is to 'endorse' and 'approve' them. (In this sense, the wording here is probably more descriptive of the process as it is actually practiced than it intends to be.) So if less than optimal outcomes emerge from the process, they must originate within the top-down process of turning government strategic guidance into concrete proposals.

Carriage of the 'needs' step of the capability development process is shared between the Strategy Group and the Capability Development Group (CDG). The Strategy Group, a mix of civilian and military staff headed by a civilian Deputy Secretary, provides the high-level articulation of the strategic guidance and military strategic priorities—with accompanying indicative planning scenarios. (In practice this part of the process can mean finding a sentence or two in the most recent White Paper that provides justification for the preferred materiel solution and then

developing a scenario in which it can be applied.) After that the CDG conducts a 'gap analysis' to identify any shortfalls in capability when measured against those strategies.

The 'requirements' phase is the responsibility of the CDG. Headed by a three-star military officer, the CDG develops the options to address the identified gaps and is responsible for developing the raft of documents, including operational concepts, which accompany any new capability proposal.

In this process, the development of military strategies and concepts is firmly in the hands of uniformed officers. Civilian responsibility is limited largely to the high-level strategic assessment component of the process. And, most importantly, there is no obvious mechanism by which Service preferences can be subjected to rigorous and independent testing. The CDG may choose to develop a number of options that meet the identified strategic/military need. But they will all be developed within the same processes and by staff who ultimately work for a Service chief—with the attendant problems of group-think identified earlier.

It is true that proposals must be presented to high-level Defence committees before being presented to government. This allows for some discussion and for alternative perspectives to be brought to bear. However, the time and staff effort required to develop alternatives—or even to scrutinise the tabled proposals in sufficient depth—is not available to other members of the committees. The development, rigorous testing and costing of a major project proposal generally requires staff-months if not years of effort.

### **... and in the past: the Forces of Darkness and Acrimony**

In the past, Defence had an in-house organisation specifically-designed to provide a high level of internal contestability. In the Tange reforms of the 1970s (which saw the individual Departments of Navy, Army, Air Force and Supply brought together into a single Department of Defence), internal contestability of ideas was seen as a critical part of the process. Sir Arthur Tange's 1973 report was the genesis of the Force Development and Analysis (FDA) division within Defence Headquarters. The rationale for creating FDA was clear:

We now have the opportunity of creating an integrated system for the study and for the debates which should surround the content of the Defence Programme. In an integrated system we can preserve the initiative and employ the expert knowledge of the Service user of equipment or manpower, yet ensure there is adequate testing of the relevance of bids for new weapons in terms of competitors for resources, before there has been unnecessary activity in developing unlikely proposals. The point has long been passed in Australia... where analysis of claims for re-equipment can be left to the Sponsoring Service alone. ... Analysis needs to be organised in a way that is informed yet dispassionate, and makes the best use of scientific method... The process would include management of studies conducted by specialised analytical bodies...<sup>9</sup>

FDA was central to the notion of contestability, and had two main roles. The first was to develop the paperwork on force development proposals for senior committee consideration. The second, which informed the first, was to test the logic and *quantify*, through rigorous operations research and scientific enquiry, the effectiveness, costs and benefits of competing proposals.

Organisationally, FDA was headed by a civilian First Assistant Secretary, at the same level of seniority as the three Service officers in charge of developing materiel bids. The committee responsible for in-house consideration of capability proposals was chaired by a civilian Deputy Secretary at the same seniority level as the three Service chiefs. By having carriage of the development of paperwork (agendum papers) for the committee, FDA had the ability to insist on alternative proposals

being included where appropriate and could reflect the pros and cons—quantified where possible—with appropriate weighting.

There is little doubt that FDA took its charter of contesting ideas seriously. Anyone who was part of the capability development process at the time will be able to attest to the degree of angst that was frequently involved. In fact, the relationship between FDA and the Services was sometimes outright adversarial in nature. This was reflected in the unofficial (but frequently applied) interpretation of the FDA acronym as 'Forces of Darkness and Acrimony'.

The nature of the relationship between FDA and the Services meant that there would be little sympathy for the organisation when budget cuts were applied. As a result, the winding-down of FDA began in the mid-1990s as part of the Defence Reform Program. By 1998 the analytic capability was much diminished and it disappeared entirely from Defence Headquarters early this decade. Similarly, the ability of senior committee secretariats to independently scrutinise costs and to provide frank assessments in agenda papers is now a shadow of its former self.

### **Contestability mechanisms under the Kinnaird process**

The 2003 Kinnaird *Defence Procurement Review* noted the need for cultural changes within Defence to improve capability acquisition outcomes, which it observed 'have not always been as positive as the Australian people, or government, have a right to expect'.<sup>10</sup> The main effect of the Kinnaird recommendations was to introduce a 'two-pass' process for capability proposals.

As the name suggests, this process involves (at least) two stages of consideration for project proposals. And, as ASPI has noted elsewhere, it has on occasion resulted in the Service 'preferred' solution being rejected in favour of an alternative. But this has proven to be the exception rather than the rule, and the focus of the two-pass process has primarily been on the assessment of cost, schedule and risk profiles of the proposals moving through the system. Because of that, it is actually the Defence Materiel Organisation (DMO) that is providing contestability in the process. It is not too unfair a characterisation to say that the Air Warfare Destroyer decision came down to Navy's preferred solution versus DMO's.

Similarly, the Department of Finance and Deregulation has a role in the Kinnaird process, with the responsibility of scrutinising Defence costings and budgeting. But Finance and the DMO are both working at a handicap in this process. By not being involved in the development of capability proposals, they are necessarily somewhat at 'arm's length'. And, like other participants in the process, they do not have the staff or the time required to generate independent alternatives. And it is not the job of either organisation. Expecting them to do so would risk distracting them from their core roles.

### **Conclusions**

The capability development process today is internally-consistent. And there is no doubt that those involved take their roles seriously. But it is today weighted heavily towards the inputs of professional military judgement. It is generally true that decision-making systems are strongest when their inputs are drawn from multiple expert sources with different perspectives. The previous balance between the military world view on one hand and the analysts who could provide different perspectives, and who do not share the service ethos brought to the table by their military counterparts, has been lost.

For much of the last decade, the absence of contestability within Defence has not been an issue within the Department. Times were good and the government found

a bucket of money for most proposals that came forward—and even for a few that didn't! Today, in more straitened financial circumstances, there will be increasing pressure for Defence to find cost-benefit trade-offs. Almost invariably, some items on Service 'wish lists' will prove to be unaffordable, or able to be provided more cost-effectively elsewhere in the force structure. In that circumstance, the internal processes that generate proposals for government decisions must be as rigorous as possible.

That there is a market for contestable advice is undeniable. At the risk of appearing self-serving, the views of ASPI and other informed sources find a ready market among Ministers and their staffs (as well as performing a valuable role in fostering wider debate on defence matters). Governments, and those working to them as part of the Kinnaird process, need to be able to consider the full range of credible options, with sober assessments of the costs and benefits.

Defence needs greater levels of internal contestability and something resembling the old FDA—placed squarely within the Defence HQ structure and with sufficient senior representation to mount a robust case should circumstances require it—would be a good place to start. Building the required level of expertise would not be easy and would take time. Analysts who have the skill (and interest) to work with the often imperfect data that accompanies defence proposals don't grow on trees. And there is no substitute for experience in defence matters.

Reinstating the formal internal contestability mechanisms would not guarantee success. Indeed, there were some proposals that should never have seen the light of day that went through the 'old school' Service/FDA process—the Seasprite helicopter and AGM-142 missile for the F-111 being two examples. But it would provide an opportunity for ideas to be tested against quite different assumptions and, at the very least, it would improve the chances of avoiding costly and/or ineffective outcomes.

It would be idle to suggest that FDA was an unmitigated force for good. Acrimony is rarely a good thing for organisational morale and, at times, debates could degenerate into bickering. In fact, for a process designed to foster dispassionate debate, the results were often decidedly passionate. But the purpose of the force development process is not to make people feel good about themselves; it is to generate robust and tested proposals for government to consider—and to ensure that the Cabinet has all of the facts at its disposal when allocating public funds for defence.

Disclaimer: the author was on the staff of FDA and its descendents from 1994 to 1999. He has the scars to prove it.

## Endnotes

- 1 Greg Sheridan, 'PM puts on the armour', *The Australian*, 23 June 2007. <http://www.theaustralian.com.au/news/pm-puts-on-the-armour/story-e6frg6v6-1111113805963>.
- 2 The *Australian* article cited above closely mirrors the operational concepts expounded in the speech given by the then Minister for Defence at the 2005 Defence and Industry Conference. <http://www.minister.defence.gov.au/HillSpeechTpl.cfm?CurrentId=4931>.
- 3 Then Head of the Capability Group Lt General David Hurley at: *Review of Defence annual report 2003–04*, Joint Standing Committee on Foreign Affairs, Defence and Trade Defence Subcommittee, 11/03/2005, p28. <http://www.aph.gov.au/hansard/joint/commtee/J8138.pdf>.
- 4 Andrew Davies and Mark Thomson, *Strategic Insights 45—Strategic choices: Defending Australia in the 21st century*, Australian Strategic Policy Institute, Canberra, Dec 2008. [http://www.aspi.org.au/publications/publication\\_details.aspx?ContentID=193&pubtype=6](http://www.aspi.org.au/publications/publication_details.aspx?ContentID=193&pubtype=6).
- 5 For example, a future ASPI publication will contain an analysis of naval force structures that shows that the RAN very closely mirrors the structures of the USN, with the obvious (and crucial) difference of aircraft carriers.
- 6 Andrew Davies, *Strategic Insights 42—Asian military trends and their implications for Australia*, Australian Strategic Policy Institute, July 2008. [http://www.aspi.org.au/publications/publication\\_details.aspx?ContentID=176&pubtype=6](http://www.aspi.org.au/publications/publication_details.aspx?ContentID=176&pubtype=6).
- 7 Carl H Builder, *The Army in the strategic planning process: who shall bell the cat?* RAND R-3513-A, April 1987. The thesis was expanded upon in Carl H. Builder, *The Masks of War*, Johns Hopkins Press, London, 1989.
- 8 *Defence Capability Development Manual*, Department of Defence, Canberra 2006. Available at [http://www.defence.gov.au/Capability/\\_Home/\\_pubs/dcdm.pdf](http://www.defence.gov.au/Capability/_Home/_pubs/dcdm.pdf).
- 9 *Report on the Reorganisation of the Defence Group of Departments*, A. H. Tange, Department of Defence, Canberra, 28 November 1973, chapter 5.
- 10 *Defence Procurement Review 2003*. [http://www.defence.gov.au/dmo/dpr/dpr\\_report.pdf](http://www.defence.gov.au/dmo/dpr/dpr_report.pdf).

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