

# Capability development in Defence

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## Introductory remarks

I'd like to thank you for the opportunity to make a short opening statement.

By way of background, I have been professionally involved in defence capability development for nearly two decades now. That has included providing scientific input into force development considerations, managing a sizeable major project, and the management and planning of a portfolio of projects within intelligence. Since leaving the Department, I have been a frequent contributor to the public debate on defence policy, planning and acquisitions.

But I should start with two caveats. First, it's now almost eight years since I was an employee of the Department of Defence, and longer since I was involved in the central processes of capability development that are the subject of this Committee's deliberations. While I attempt to stay as current as possible, there are bound to be points of detail I'm behind the curve on. Second, the Minister announced last week that I would be on his advisory panel for the development of the next defence white paper. That process has not begun yet, so anything I say today in no way reflects the views of the Minister or of the department of defence.

When the ANAO report into capability development was released late last year, my colleague Mark Thomson and I wrote a critique of it for our corporate blog. I'd like to table that work in two parts. For the public record, I'd add that I received some comments and a very helpful briefing from the Capability Development Group between the publication of those two parts. They felt that the first part reflected an insufficient appreciation of the efforts made to reform defence capability planning in recent years. The second part, I hope, reflects the discussion we had.

Let me say that the criticisms I'm about to make shouldn't be taken as a reflection of either the professionalism or the hard work of the CDG. Rather, I think they have been grappling with some difficult issues, and making some decent headway towards a more rigorous and internally transparent process. I say 'internally' there quite deliberately. From the outside it's often difficult to discern the details of the process or to infer the train of logic underpinning decisions from the observed outcomes.

Because of that, I think the most productive way for me to proceed today is to largely ignore the internal machinations of the CDG and to look instead at their inputs and outputs. I think there are substantive issues at both ends of the process.

We can safely conclude that something is badly askew in the capability development process based on an assessment of the current Defence Capability Plan and the Defence budget. Mark Thomson has described the latter as an 'unsustainable mess'—a turn of phrase not used

lightly—and I refer you to his budget briefs of the last few years where you'll find a great deal of evidence to support that claim.

My role at ASPI is to look at force structure planning, and I take a strong interest in the DCP and its capability and budgetary implications. And there's a huge problem on the horizon. Simply put—there is nowhere near enough money in the Defence budget, even if promised increases in funding manage to fight their way through the competing government priorities.

By any reasonable calculation, the DCP is heavily oversubscribed. I can't recall a time in which there were so many very large projects. The DCP doesn't have just one elephant in the room, it has a herd of them. The future submarine, future frigate, F-35 joint strike fighter, armoured vehicles for the Army and maritime patrol aircraft projects total, by my estimation, over \$100 billion for the acquisition phase. To put that in perspective, the current annual acquisition budget is around \$5 billion.

In other words, the mega fauna projects would consume two decades worth of the current funding on their own—leaving little or no room for all of the other projects that are necessary to keep the ADF effective. This can't work.

When Mark Thomson and I did our own costings of force structures we got a very different answer to the costings—such as they were—in the 2009 defence white paper. I'm happy to talk some more about that.

As I see it, the capability development process is effective, more or less, at de-risking individual projects, but isn't adequately managing the portfolio of inputs. I suspect that there are problems with the inputs to the process—another point we might usefully discuss. Simply put, the best process in the world can't produce sensible answers from the wrong starting point.

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## Attachments

1. Capability development – still a work in progress (1), Andrew Davies and Mark Thomson, from the ASPI blog *The Strategist*, 28 November 2013.
2. Capability development – still a work in progress (2), Andrew Davies and Mark Thomson, from the ASPI blog *The Strategist*, ~~28 November~~ 4 December 2013.

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## Capability development—still a work in progress (1)

Posted By [Andrew Davies](#) On Nov 28, 2013 In [General](#) | [Comments Disabled](#)

Although it went largely unnoticed, at the end of October the Australian National Audit Office (ANAO) released its [performance audit of Capability Development Reform in Defence](#). It has all the weaknesses, strengths and charm we've come to expect from the fine folks at the audit office.

Its major weakness is a focus on compliance at the expense of outcomes, but that reflects the nature of performance audits rather than an error on the behalf of the authors. And, by testing Defence's implementation of the [2003 Kinnaird](#) and [2008 Mortimer](#) reviews of acquisition, much of what matters is covered in any case.

As with prior ANAO audits, the report's strength comes from the systematic examination of evidence. Time and time again, the audit office has shown that some of the most damning indictments of Defence can be found sitting in that organisation's own filing cabinets, or by comparing its public pronouncements to its actual performance.

As for charm, this particular report outdoes its predecessors in terms of carefully measured understatement and the tongue in cheek disclosure of facts that speak for themselves. Who'd have thought, for example, that the ANAO would tabulate two pages worth of damning extracts from inter-ministerial correspondence regarding tardy advice from Defence on delays and changes to the scope of projects? It contains such gems as this Ministerial notation: 'No advice on the progress of this project has been brought to government attention since it was approved over 10 years ago'—on paperwork for a project that was 70 months late.

So what did the auditors conclude? The report is organised around four themes that have recurred in successive reviews of Defence's capability development activities. At the risk of oversimplifying the report's 15 chapters and 325 pages, the more interesting conclusions grouped by theme are:

### Capability development – organisation and processes

The good news is that Defence has documented its capability development processes and improved its record keeping. That's nice. The bad news is that Defence's capability development group continues to be staffed by predominately military personnel with short tenures and limited experience in capability development—despite successive recommendations to the contrary. So long as multi-million dollar projects are conceived and managed by people whose professional training and future careers lie elsewhere, there's a limit on what can be achieved. Some military expertise on the operational realities of using defence systems is essential, but it's time we recognised that conceiving, costing and developing defence acquisition proposals are skills in their own right.

There's also been slow progress in reforming two critical aspects of the capability development process; the entry of projects into the Defence Capability Plan (DCP), and the estimation of personnel and operating costs associated with new capability. Until these matters are resolved we can have no confidence that the multi-billion dollar plans for developing the defence force are either strategically valid or affordable. And there's a good case to be made that these are related problems—by allowing projects without accurate costings into the DCP (thereby gaining organisational momentum that makes it hard to kill them off later), there's no reason to expect the plan to represent cost-effective capability planning later.

### Improving advice to government when seeking approval

Again, there's some good news to report. The ANAO found that the assessment of technical risks

in projects has improved since the 2009 Pappas Review (PDF), and that the Defence Science and Technology Organisation is providing advice through a mature and well-documented process. Of course, 'well-documented' and 'accurate' are two different things, and only post mortem reviews of the outcome of projects approved under the new risk assessment process will tell us how successful it has been—something that won't be possible for some time given the typical timescale of the more complex major projects.

We're not as convinced as the ANAO about the ability of the Department of Finance to verify Defence's cost estimates. So while it's probably a good thing that the provision of information to Finance has improved, we wouldn't expect it to fix the chronic underestimation of final costs (and schedules, which also have a financial impact) that has long been the hallmark of Defence projects. For complex financial calculations, arm's length is too far away.

Not for the first time, Defence is seen to be falling short of the recommendations of previous reviews to include a rigorous cost-benefit analysis of its developmental projects against a genuine off-the-shelf (OTS) option. The ANAO observe that the inclusion of an OTS option was met in 'process terms' but not in 'outcome terms'. Simply put—in our words, not the Audit Office's—Defence too often pays lip service to OTS while pursuing expensive and risky bespoke solutions.

We'll come back in a later post to discuss the remaining two themes; 'improving accountability and advice during project implementation' and 'reporting on progress with reform'.

*Andrew Davies is senior analyst for defence capability at ASPI and executive editor of The Strategist. Mark Thomson is senior analyst for defence economics at ASPI. Image courtesy of Flickr user [BWJones](#).*

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- [1] Image: <http://www.aspistrategist.org.au/wp-content/uploads/2013/11/microscope.jpg>
- [2] performance audit of Capability Development Reform in Defence: <http://www.anao.gov.au/Publications/Audit-Reports/2013-2014/Capability-Development-Reform>
- [3] 2003 Kinnaird: <http://www.defence.gov.au/publications/dpr180903.pdf>
- [4] 2008 Mortimer: <http://www.defence.gov.au/publications/mortimerreview.pdf>
- [5] 2009 Pappas Review: <http://www.defence.gov.au/publications/DefenceBudgetAudit.pdf>
- [6] BWJones: <http://www.flickr.com/photos/bwjones/4344712708/sizes/o/in/photolist-7BVMHN-7aarN-fxBPRm-aSc8uX-7CgdmK-sGZEi-7Cgdng-6urMdZ-4UNJt-4tt8Xc-4tt8Wr-2m7m3-eo7rU-7jUUjr-eex4Fn-FHSvf-FHSvu-FHSvo-FHSvj-57CJUu-2gPFZ-8v3iPX-aDkiNQ-7jYCGJ-bCocVW-2gRVH-7Wyyv1V-zrknW-8Sa6nY-8Sa9rh-26sT3U-8v31fH-fHS6Ev-GB86X-9rQs72-ukUNr-9rU1j2-8S6PPZ-6AM4TP-6gi6Nf-9rS6AR-hhGye-9rTRnU-8QyEzp-8S6NHi-8Sa5XL-8S6TBi-8S6R8r-8S74S4-8Sa579-8S9YuE/http://>

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## Capability development—still a work in progress (2)

Posted By [Andrew Davies](#) On Dec 4, 2013 In [General](#) | [Comments Disabled](#)

In [last week's post](#) we presented a potted summary of two of the four main areas of difficulty within the Defence capability development process identified by the Australian National Audit Office (ANAO). Today we'll finish with the other two, and offer a few thoughts of our own.

We should caution that the perspectives here are necessarily in the context of the audit office report. In fairness, we're going to talk to our friends in Defence as well, and we'll report later on what we find. As we mentioned last week, the ANAO's focus is very much on compliance, and is inherently rearwards looking, and we might see a different picture when we look through a different lens. But for now, on with the overview.

### *Improving accountability and advice during project implementation*

This audit report makes the observation that 'further work is required to improve accountability'. That's hardly a revelation; accountability (or, more accurately, the lack of accountability) within Defence has been a recurring theme of successive reviews dating back to the Tange era. More interesting in this case is the auditor's approach of drilling down into the implementation of previous measures intended to improve accountability.

One of the major Kinnaird recommendations from 2003, for example, was that 'Capability Managers should have the authority and responsibility to report to government on the development of defence capability at all stages of the capability cycle'. Ten years on, the reporting that's happening still doesn't satisfy the ANAO, although Defence has agreed with the auditor's recommendations for a more thorough reporting scheme. As a small insight into the Byzantine world of Defence committees, ANAO informs us that the Capability Development Reform Stream Governance Committee handed over reform activities to the Capability Development and Materiel Reform Committee in 2012. ([Judean People's Front, anyone? \(video\)](#))

The ANAO concludes, perhaps a little wistfully:

In September 2013, Defence further advised that [the] Recommendation had been 'closed by process' (but not outcome) at a meeting of its CDMRC on 27 August 2013. However, there is no evidence of the envisaged reports having yet been produced.

### *Reporting on progress with reform*

There's naturally been a great deal interest in the progress of capability development and acquisition reform, and the ANAO has looked closely at DMO's reporting on implementation of the Mortimer Review recommendations—both internally and through its evidence to parliamentary committees. As you might expect, the fun starts when the auditors compare DMO's internal and external reporting. The following self-explanatory quote captures the thrust of the auditor's forensics:

Defence's August 2011 response to the Senate Committee, in which it said that it had 'fully implemented' 29 Mortimer recommendations, provided limited information and had the potential to give an impression of greater progress than had actually been achieved.

Once again, the issue hinges on the notions of 'process' versus 'outcomes'. The Senate Committee was availed of the strides being made from a process perspective, but not told of the



less favourable situation prevailing in terms of actual outcomes. Defence's less than complete disclosure of progress wouldn't have come as a surprise to the ANAO. In an earlier report on Defence's implementation of audit recommendations, the ANAO exposed a worrying deficit between claimed and actual progress.

But to a point that's not surprising. DMO's closure framework for the Mortimer recommendations is a two-step approach. Firstly, the recommendation is implemented by introducing the appropriate process. Once the new/amended process is in place, the recommendation is considered 'closed by process'. The next step is to gather information to ensure the process is producing the desired effect—and only when that's available is the recommendation is 'closed by outcome'. This is one of the difficulties of implementing and then measuring reform in a process that can be many years from end to end.

One area where DMO tries to measure and report outcomes is the extent to which projects are delivered on schedule—the message being that things have improved as a result of recent reforms. Yet here again the ANAO find fault, citing a range of issues about the metrics and benchmarks used. Fair enough, that's their job. But the discussion misses the larger picture. To start with, it would be surprising if schedule performance wasn't improving given the recent shift in favour of off-the-shelf purchases. More importantly, post-approval schedule performance is a poor measure of the effectiveness of reform in DMO. In most instances, schedule performance is much more a measure of (1) industry's performance and (2) the inherent riskiness of projects, than it is a diagnostic of DMO's performance.

#### *Postscript*

We hope that the result of this audit will be positive. It's always possible that the result of 'reform' is the addition of even more layers of review and reporting to an already process-heavy system. This will make it even harder for the no-doubt dedicated staff of Capability Development Group to focus on outcomes; more process and documentation is the last thing they need. In fact, where we are today in many ways reflects the response to past reviews of Defence decision making and capability development—which has been to add even more complexity to the process and more stakeholders to the committees (thus increasing the diffusion of accountability).

We note that the Capability Development Group in Defence is now well into its own Capability Development Improvement Program, which began during the ANAO audit and is aimed to address many of the points raised, as well as some self-identified problems. Between the audit recommendations and Defence's own initiatives, hopefully we'll begin to see better cost and schedule estimates, and better capability outcomes—which is what we really care about. To the extent that we can with limited public data, we'll be watching the metrics for any such improvements.

*Andrew Davies is senior analyst for defence capability at ASPI and executive editor of The Strategist. Mark Thomson is senior analyst for defence economics at ASPI. Image courtesy of Flickr user [Red~Cyan](#).*

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[1] Image: [http://www.aspistrategist.org.au/wp-content/uploads/2013/12/men\\_at\\_work.jpg](http://www.aspistrategist.org.au/wp-content/uploads/2013/12/men_at_work.jpg)

[2] last week's post: <http://www.aspistrategist.org.au/capability-development-still-a-work-in-progress-1/>

[3] Judean People's Front, anyone: [http://www.youtube.com/watch?v=gb\\_qHP7VaZE](http://www.youtube.com/watch?v=gb_qHP7VaZE)

[4] earlier report: <http://www.anao.gov.au/~media/Files/Audit%20Reports/2012%202013/Audit%20Report%2025/2012-13%20Audit%20Report%20No%2025.pdf>

[5] Red~Cyan: <http://www.flickr.com/photos/58679537@N00/1006351276/in/photolist-2wVPb5-cnMu8W-3t3Ti-7YVo6T-hirXo9-bXnQaM-fe6C2N-fe67Fw-fe6muY-bvsebe-9FtXR-N4Yi-KTXS-93vfbt-2CWx8-37GT7S-6vyJzJ-8TPKh4-JABD-JABF-7yZdw-61tfYg-Ck25S-cCz2ME-cCyLXw-3cdnMQ-swzAb-botZnx-e2QAfY-9tmE9v-331hy9-JxZf-fdPzqz-bvsdTr-77MynY-9ptNp6-6mKdEd-8NHEmf-SVZ1R-4ubpAS-bMSwn4-7TNNCW-azSF8P-Aw4UE-8y3QxC-ETQrK-9uXrAR-48A46E->