Chapter 3

Lessons to be learnt

3.1 Whilst the former chapter considered mistakes made with acquisitions well underway, this chapter identifies some of the concerns being expressed about projects still in their infancy. The committee does so in order to test Defence's consistent assertion in evidence that all the failings identified by the committee so far are in the past and that since Mortimer and 2010 a new leaf has been turned. As many of the problems experienced by the older projects took root in the early stages of their development, this chapter considers the newer ones and whether the lessons emanating from the more advanced projects are being heeded. Also, in light of the government's announcement that a new Defence White Paper is to be produced in the first half of 2013, the committee reviews the 2009 White Paper to ascertain whether there are lessons to be drawn from this document that relate to acquisition.

Early research and analysis

3.2 Experience from previous projects underline the need for early risk analysis and have warned against underestimating a project's complexity from the very start. A number of analysts, however, have pointed out that some capability has been prescribed in the White Paper before the effect on project cost and risk has been established.[1]

New submarines—SEA 1000

3.3 In relation to the new submarine project, the White Paper stated that:

> ...the Government has decided to acquire 12 new Future Submarines, to be assembled in South Australia. This will be a major design and construction program spanning three decades, and will be Australia's largest ever single defence project. The Future Submarine will have greater range, longer endurance on patrol, and expanded capabilities compared to the current Collins class submarine. It will also be equipped with very secure real-time communications and be able to carry different mission payloads such as uninhabited underwater vehicles.
>
> The boats need to be able to undertake prolonged covert patrols over the full distance of our strategic approaches and in operational areas. They require low signatures across all spectrums, including at high speeds.[2]

3.4 In that regard, Dr Davies recently noted that the future submarine has a 'suite of capabilities that have never been combined into a conventionally-powered submarine'. He made the point that the prescribed submarines will 'set a new

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1 Dr Andrew Davies, personal capacity, *Committee Hansard*, 12 August 2011, p. 3.

2 Department of Defence, *Defence White Paper 2009*, paragraphs 9.3–9.4, p. 70.

benchmark for conventional submarine capability' which the RAND Corporation has identified as 'historically being when the largest jumps in the cost occur'.[3] He informed the committee that:

> The future submarine is probably the best example of the top-down process driving us down a particular path. We seem to be moving towards designing and constructing what I describe with tongue only slightly in cheek as a conventionally powered nuclear submarine, with all the cost and risk that will inevitably ensue from that. Maybe that is the right solution for Australia, but I think it is far too early to rule out other possible solutions.[4]

3.5 A former Chief of Army, Professor Peter Leahy, noted that the rationale for 12 submarines has received 'scant contestable justification' in the White Paper and the decision to acquire the 12 large, indigenous designed submarines requires 'further consideration and validation before its merits can be judged against other competing demands'.[5] Mr Derek Woolner concluded that drawing on the experience of the Collins Class to inform the future submarine project, will require, amongst other things, that the objectives of the new class of submarine be 'thoroughly developed and clearly enunciated'.[6] He made the point that by first pass approval, the nature of the project would already have been decided. Thus, in his view, the relevant stakeholders including industry need to be engaged at the very start of the project when the operational concept is developed and contestability needs to take place in relation to that operational concept. Mr Woolner held that once the government has decided on the combat system and weaponry for the future submarine, such a decision would go 'a long way to deciding the nature of the project all the way through to the procurement strategy and the inherent risks involved in that'. He noted, for instance, there is a very heavy presumption that it will continue to go with the Raytheon system because it has US naval support and a growth path attached to it. Therefore:

> Once the government agrees that what it wants is a weapons system that will allow the services to proceed in a certain way…that limits the options about which way you want to proceed and that in turn gets you into a very narrow field of risk management.[7]

3.6 Mr Woolner highlighted a lesson to be learnt from the Collins Class submarines experience—by prioritising the combat system, the Collins grew from a 2,000-tonne boat to over a 3,000-tonne boat as the process of identifying what

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3 Dr Andrew Davies, 'What price the future submarine?', ASPI, 2 March 2012.

4 Dr Andrew Davies, personal capacity, *Committee Hansard*, 12 August 2011, pp. 1–2.

5 Peter Lehy, 'Shifting Priorities in National Security: More Security Less Defence', *Security Challenges*, vol.6, no.2 (Winter 2010), p. 6.

6 Derek Woolner, 'Taking the Past in the Future: The Collins Submarine Project and Sea 1000', *Security Challenges*, vol. 5, no. 3 (Spring 2009), p. 71.

7 Mr Derek Woolner, *Committee Hansard*, 12 June 2012, p. 29.

equipment could fit on the boat led the growth of the design 'not just to mount the equipment but to supply the cooling and energy and so on'.[8]

3.7 Dr Davies noted that the government will not be in a position to decide what the future submarine will do until it 'understands all the potential costs and benefits of the various types of submarine that it might choose to acquire'. He held that the 2009 White Paper has unravelled because 'the ambition that was articulated in there was not informed by the resource and project risk implications'.[9] Dr Brabin-Smith supported this position and raised the question as to why the new submarines were to be 'so much more capable than the Collins class were designed to be, noting that the characteristics of the Collins class were chosen from the quite careful analysis of the needs of the defence of Australia and operations in our region'.[10]

3.8 The legislation committee was informed in May 2010 that $15.4 million had been allocated for early studies and research in relation to the future submarine project of which $9 million had not been spent.[11] In mid-December 2011, the Defence Minister announced that the government had approved the release of Requests for Information to three overseas submarine designers offering military-off-the-shelf (MOTS) designs. It had also entered into a contract with Babcock to study the establishment of a land based propulsion systems test facility to inform engineering development of the future submarines.[12]

3.9 In order to deliver the new capability submarines in time to replace the Collins Class, preliminary work to prepare first pass approval in late 2013/early 2014 is clearly a demanding priority.

3.10 Built at a cost of $8.5 billion (based on today's dollar), the six Collins Class submarines have presented a 'succession of problems' including capability shortfalls and reliability issues. According to Dr Davies and Dr Thomson, these lessons need to be applied to the future submarines including the fact that the Collins 'still lacked a working combat system and its diesel engines were highly unreliable' despite a series of engineering fixes in place.[13] In their view:

> Even with an effective combat system and the modern torpedoes fitted, the combination of poor reliability and operational restrictions (not to mention

8 Mr Derek Woolner, *Committee Hansard*, 12 June 2012, p. 30.

9 Dr Andrew Davies, *Committee Hansard*, 12 June 2012, p. 48.

10 Dr Richard Brabin-Smith, *Committee Hansard*, 12 June 2012, p. 48.

11 Senate Foreign Affairs, Defence and Trade Legislation Committee, Estimates, *Committee Hansard*, 31 May 2010, pp. 49-50.

12 Minister for Defence and Minister for Defence Materiel, 'Progress of future submarine project', 13 December 2011, http://www.minister.defence.gov.au/2011/12/13/minister-for-defence-and-minister-for-defence-materiel-progress-of-future-submarine-project-2/ (accessed 7 May 2012).

13 Andrew Davies and Mark Thomson, 'Mind the gap: getting serious about submarines', ASPI, April 2012, p. 2.

> low submariner numbers and limited crew experience) must limit the practical employment of the boats. So, although the Collins class is at least allowing the Royal Australian Navy (RAN) to rebuild its submarine workforce, its usefulness as practical weapon of war is uncertain. The picture only gets worse if the vessels' unexpected high maintenance demands and consequent poor availability are taken into account.[14]

3.11 Dr Davies and Dr Thomson argued that initial design work and acquisition strategy development for the SEA 1000 needs to start immediately 'so that the costs, benefits and risks of the competing options—new design, evolved Collins and MOTS—can be assessed'.

3.12 Given that the future submarines are due for second pass consideration around 2017,[15] analysts and industry representatives are voicing concerns about up-front investment in terms of preliminary research and capability studies and the risks of schedule slippage which could result in a capability gap. There are rising fears that the new submarines will not be built in time to replace the Collins Class which will reach the end of its planned life between 2022 and 2031 unless its lifespan is extended. However, Dr Andrew Davies and Dr Mark Thomson argued that ASC, the Navy and DMO do not know how much longer the Collins can be kept in service, despite 17 years of fleet operations.[16] They noted most recently that there had been little progress in the three years since the 2009 Defence White Paper in relation to the future submarine and 'time is running out for a seamless transition to another class'.[17] In an April 2012 paper, they concluded:

> We are already past the point at which a force of that size and capability can be in place even by the mid-2030s.[18]

3.13 On 3 May 2012, the Prime Minister announced that $214 million would be provided for the 'next stage' of the future submarine project and be directed towards future studies and analysis to inform the government's decisions on the design of the

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14 Andrew Davies and Mark Thomson, 'Mind the gap: getting serious about submarines', ASPI, April 2012, p. 4.

15 Prime Minister, Minister for Defence, Minister for Defence Materiel, Joint Media Release—'Next stage of future submarine project announced', 3 May 2012, http://www.minister.defence.gov.au/2012/05/03/prime-minister-minister-for-defence-minister-for-defence-materiel-joint-media-release-next-stage-of-future-submarine-project-announced (accessed 7 May 2012); Vice Admiral Matt Tripovich informed the committee in May 2010 that second pass was 'still about six years away'. Senate Foreign Affairs, Defence and Trade Legislation Committee, Estimates, *Committee Hansard*, 31 May 2010, p. 46.

16 Andrew Davies and Mark Thomson, 'Mind the gap: getting serious about submarines', ASPI, April 2012, p. 6.

17 Andrew Davies and Mark Thomson, 'Mind the gap: getting serious about submarines', ASPI, April 2012.

18 Andrew Davies and Mark Thomson, 'Mind the gap. getting serious about submarines', ASPI, April 2012.

next submarines.[19] Studies will be conducted across three areas including design, scientific and technological studies, and the future submarine industry skills plan. It should also be noted that a detailed Service Life-Evaluation Program (SLEP) study is currently underway to determine whether the lifespan of the Collins can be extended beyond their expected life. In this regard, Dr Davies and Dr Thomson emphasised the importance of 'rigorous and independent recommendations' in relation to the SLEP given that, and as the previous chapter attested:

> Over the past two decades, Defence has consistently underestimated the cost, schedule and risk of projects—especially during the early planning stages...Given this reality, it's imperative that the Defence Materiel Organisation, as the government's defence acquisition adviser seek independent advice on the conduct of and recommendations emerging from the SLEP and be able to present the advice and recommendations to government. To do otherwise would risk a repeat of the costly F-111 end-of-life saga.[20]

Skills, infrastructure and working relationships

3.14 In relation to skills, industry representatives noted the rundown of skills in relation to the submarine capability and emphasised the need to start immediately to build and develop necessary skills.[21] Mr John O'Callaghan, Australian Industry Group Defence Council, informed the committee that:

> We need to use the lead time between now and when the construction actually starts to develop that skill base again, at a much higher level than previously was the case.[22]

3.15 This observation from industry seems bland. The RAND study noted gaps in both industry and government between the number of experienced design personnel available to work on a new submarine program and the number required. The study identified two important gaps in the skills base needed for the new submarines. It drew attention to the fact that:

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19 Prime Minister, Minister for Defence, Minister for Defence Materiel—Joint Media Release—'Next stage of future submarine project announced', 3 May 2012, http://www.minister.defence.gov.au/2012/05/03/prime-minister-minister-for-defence-minister-for-defence-materiel-joint-media-release-next-stage-of-future-submarine-project-announced/ (accessed 7 May 2012).

20 Andrew Davies and Mark Thomson, 'Mind the gap: getting serious about submarines', ASPI, April 2012, p. 19.

21 See for example, Mr Innes Willox, Australian Industry Group Defence Council, *Committee Hansard*, 11 August 2011, p. 17 and Mr John O'Callaghan, Australian Industry Group Defence Council, *Committee Hansard*, 11 August 2011, p. 16.

22 Mr John O'Callaghan, Australian Industry Group Defence Council, *Committee Hansard*, 11 August 2011, p. 16.

- existing personnel are fully employed supporting the Collins Class or other RAN programs and cannot contribute to a new submarine design without risk to ongoing RAN programs; and
- there were too few personnel with skills anticipated to be important in the design of a future submarine, in particular few if any resources in the discipline of large complex program management and in specific areas related to propulsion, fluids, electrical systems, cost estimation, testing and planning and production.[23]

3.16 Dr Davies informed the committee that the Collins Class submarine project was instigated in the 1980s when the 'naval engineering capability was far greater than it is today within Defence, and we still got into trouble'. He noted that whilst most of these problems were eventually solved, it was a difficult process. Yet:

> In the last couple of years we have had reports from Coles about the submarines, from Rizzo about the amphibious fleet and from the ANAO about naval capability, and they have all said that Navy does not have the engineering capability to handle complex projects. Until we fix that, our ability to even assess risk, let alone manage it, will not be up to the task.[24]

3.17 The RAND study also noted infrastructure shortfalls and cited a facility to test integrated propulsion and energy alternatives as one critical deficiency that Australia would need to address.[25] As noted earlier, a study has just commenced into the establishment of a propulsion test facility. Moreover, in his report on the sustainment of the Collins Class, Mr John Coles referred to the importance of the various strands of activity operating as an 'Enterprise' to deliver submarine capability. Thus, the four elements, DoFD, DMO, RAN and industry should be working together to deliver the right level of submarine availability at the right place. Unfortunately, he gained the impression of 'highly-charged, difficult and often hostile relationships between the parties'.[26]

3.18 The committee is very concerned about the current unease expressed by a number of defence analysts regarding decisions already taken on the 12 new submarines. It is equally concerned about the government and Defence applying the lessons to be learnt on risk analysis during the early stages of capability development, as underlined in the previous chapter. The RAND study, *Learning from Experience—Lessons from Australia's Collins Submarine Program*, identified a number of lessons

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23 RAND, *Australia's Submarine Design Capabilities and Capacities: Challenges and Options for the Future Submarine*, prepared for the Australian Department of Defence, 2011, pp. xxxviii–xli.

24 Dr Andrew Davies, personal capacity, *Committee Hansard*, 12 June 2012, p. 32.

25 See paragraph 3.8 where the committee noted a study to be conducted on the establishment of a land based propulsion systems test facility.

26 John Coles, *Collins Class Sustainment Review, Phase 1 Report*, p. 9.

from the previous submarine project, especially that the 'most important aspect of a new program entails the decisions made very early in the program'.

3.19 The committee agrees that all the lessons in the study must be applied assiduously to SEA 1000 but in particular that decisions must be fully informed by knowledge of the risks and consequences.

Recommendation

3.20 Because this project is still at an early stage, and based on the RAND study, the Coles Report, independent defence analysts and the past performance of major Defence acquisition projects, the committee recommends that government and Defence need to start work immediately to:

- **ensure that the program is directly managed by Chief of Navy supported by the ASC and DMO where relevant, the scientific community and the public—support must be both external to the program and internal within the navy and submarine community;**[27]
- **avoid early lock-in through premature weapons systems choices;**
- **ensure that the capability sought is available and minimises developmental risks;**
- **take drastic action to address the serious skill shortages identified by RAND before a decision on assembly in Australia is made, regardless of type and design;**
- **ensure that the program is open and transparent—full disclosure throughout the program is necessary to obtain government, industry and public support;**
- **involve experienced people in key management positions—this requires a strategy to grow people so they are experienced in various disciplines—a top-level strategic lesson must be implemented far in advance of any specific program; and**
- **listen to technical community concerns about risk—the technical community, supplemented by outside expertise from industry and allied technology partners as necessary, should understand the state of technology and the degree to which a new design extends that technology.**[28]

3.21 The committee believes that the experience with the Collins Class and the enormous challenges in being a parent Navy should focus the minds of key decision-

27 RAND, *Learning from Experience, Volume IV, Lessons from Australia's Collins Submarine Program,* 2011, p. xiii.

28 A number of these recommendations were taken from, or based on, RAND, *Learning from Experience, Volume IV, Lessons from Australia's Collins Submarine Program,* 2011, pp. xiii–xiv.

makers on possible pitfalls. There are early signs, however, that Australia is at risk of repeating the same cycle of blind hope. The committee is concerned that even at this Needs phase of SEA 1000 there are worrying indications that government and Defence have not heeded lessons from past experience, especially the critical importance of basing decisions on a sound and clear-eyed understanding of potential costs, benefits and technical risk. The tardy start to upfront investment for capability studies, the prescriptive nature of the project's inclusion in the White Paper and the short timeframe in which to acquire the requisite skills do not bode well for project SEA 1000. The committee accepts the view that no solution will be perfect or simple. An important lesson for government to consider is that, except in the specific case where another military is already using equipment that is good enough for Australia (for example C17), evolution is lower risk and lower cost than leaping to a new standard via evolved MOTS or new build. Procrastination and hoping to reduce risk by dragging out decisions allows skills, workforce and knowledge to dissipate thereby driving up risk.

Recommendation

3.22 The committee recommends that government and Defence respond publicly to the committee's criticisms made in this report with respect to lessons not learnt, and outline the detailed process and all the options on which current planning on submarines is taking place.

Offshore combatant vessel

3.23 The offshore combatant vessel (SEA 1180) was another project in the White Paper indicating that close attention needed to be paid to past experiences.

3.24 In the 2009 White Paper, the government announced that it had decided to rationalise the Navy's patrol boat, mine counter measures, hydrographic and oceanographic forces into a single modular multi-role class of around 20 Offshore Combatant Vessels combining four existing classes of vessels. The concept involves the use of modular unmanned underwater systems for both mine countermeasures and hydrographic tasks. The government envisioned the systems to be containerised and portable modules capable of being used in any port or loaded onto any of the Offshore Combatant Vessels or other suitable vessels. According to the White Paper, the future vessel would be able to:

> …undertake offshore and littoral warfighting roles, border protection tasks, long-range counter-terrorism and counter-piracy operations, support to special forces, and missions in support of security and stability in the immediate neighbourhood.[29]

3.25 Aware of developmental projects and their troubled history, the committee asked Defence about the extent of consultation around the concept of a multi-role

29 Department of Defence, *Defending Australia in the Asia Pacific Century: Force 2030*, Defence White Paper 2009, paragraphs 9.19–9.22.

vessel, especially with industry. Air Marshal Harvey informed the committee that engagement with industry would be held progressively. He understood that the user requirement had been released to industry. According to the Air Marshal:

> The capability maritime development team is working on the project proposal. Certainly feedback I have had is that it is possible; it is challenging, certainly, but the potential developments going to the common vessel type do make it worthwhile pursuing that. In parallel DSTO are doing their studies, we increasingly engage with industry as we go through and, if it turned out not to be feasible, we would include that in advice to government. The advice we have so far is that we believe it is feasible and it is worth pursuing.[30]

3.26 When asked about the multi-role vessel, representatives from the prime contractors in Australia informed the committee that a greater level of discussion needs to take place at the outset of translating strategic requirement into operational requirement. In their view specialist expertise on the project could be brought to bear at that point. They noted that at this stage there was no competition and industry could add a lot of value, such as bringing forward lessons learnt from similar projects offshore where they might have experienced difficulties combining the requirements for three vessels into a single vessel. The representatives noted that as part of a multinational company they can draw on their international experience.[31] One stated:

> All of the comments made by industry in those early encounters can be validated independently and separately…the fact that the information is not injected at the early stage and not used is a problem and I think it loses value for the taxpayer.[32]

3.27 Having noted the importance of early engagement, the representatives made clear that they had not been consulted on the feasibility of the multi-role vessel proposal 'at any level of detail that was useful'. One stated clearly that not one had been brought in to discuss the detail of what was possible and what was not.[33]

3.28 Dr Davies and Dr Thomson concurred with this view about the value of engaging industry in the early stages of capability development to ensure that planning is informed by a clear understanding of what's available technologically and commercially. Dr Thomson explained that industry would be free to pitch their ideas and Defence could find out what opportunities existed in a whole range of different areas. For example, he asked—'is it going to be a mine hunter and is it going to be a patrol boat…is it going to be all things to all people'. He suggested that if you talk to

30 *Committee Hansard*, 5 October 2011, p. 15.

31 *Committee Hansard*, in camera.

32 *Committee Hansard*, in camera.

33 *Committee Hansard*, in camera.

people who build boats for a living, 'you might actually temper your aspirations…good information up front would have tempered that sort of thing'.[34]

3.29 According to Dr Davies and Dr Thomson, the 'risible suggestion in the 2009 White Paper and subsequent DCP' to replace the Navy's current patrol boats, mine hunters and hydrographic ships with a single class of vessels' demonstrated the 'risk of planning in an information vacuum'.[35]

Industry engagement

3.30 More generally, on the matter of industry engagement, Mr Ben White of the Australian Business Defence Industry Unit underlined the importance of industry receiving 'clear signals and a degree of confidence to encourage it to invest in the defence market'.[36] Similarly, in August 2011, Mr Christopher Burns of the Defence Teaming Centre informed the committee that if a good submarine were required, Australian industry needs to be involved in the design of the submarine and that 'we needed to have started designing that, and the dollars needed to be invested in designing that, last year'.[37] However, in June 2012, the committee heard evidence from Mr O'Callaghan that while industry had been 'frozen out' three or four years ago, the reinvigoration of the Capability Development Advisory Forum (CDAF) and environmental working group, has led to 'high-level industry engagement'. Such engagement has contributed to a 'better baseline for identifying and managing the sorts of risks associated with the more complex projects coming on stream'.[38] Moreover, in relation to SEA 1000, Mr O'Callaghan expressed the view there had been improvements over the past twelve months with the early engagement of key industry CEOs while a separate panel had been established for the project based on the CDAF arrangement. In light of the delays engaging industry, the committee remains unconvinced that finally 'high-level industry engagement' has been achieved.

3.31 The committee considers the early engagement of industry more fully in chapter 14.

Committee view

3.32 Despite Defence's assurances, the committee is very concerned that the submarine project to date contains the same seeds of failure that have bedevilled defence procurement for years. The importance of the early stages of capability development cannot be underestimated. Whilst recent announcements in relation to

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34 *Committee Hansard*, 12 August 2011, p. 11.

35 *Submission 8*, p. [2].

36 Mr Ben White, Australian Industry Group Defence Council, *Committee Hansard*, 11 August 2011, p. 16.

37 Mr Christopher Burns, Defence Teaming Centre, *Committee Hansard*, 11 August 2011, p. 17.

38 Mr John O'Callaghan, Australian Industry Group Defence Council, *Committee Hansard*, 12 June 2012, pp. 27–28.

studies to consider procurement options for the future submarines together with studies in relation to an industry skills plan is encouraging, they reflect troubling signs that one of the centrepiece projects listed in the White Paper is yet to undergo thorough analysis and consideration. The lack of information on costings is particularly concerning. The same concerns about the multi-role combat vessels project are emerging—first pass approval is due financial year 2014–15 to financial year 2015–16.[39]

3.33 The committee also recognises the need for Defence to build public support for the new submarine program. It believes that much work needs to be done to earn the confidence of the Australian people in this project—transparency by government and Defence is important. The new White Paper presents an opportunity for the government and Defence to start to provide assurances that the decisions relating to SEA 1000 and SEA 1180 are based in sound, robust and fully considered analysis.

Funding *Force 2030*

3.34 Given that the White Paper contains only vague funding detail, questions have been raised persistently in relation to the costs of realising the 2009 White Paper, including that of the future submarine. According to Mr Barrie, white papers need to spell out new capability requirements and how these judgements drive portfolio funding requirements as well as industry development.[40] The 2009 White Paper, however, lacks any detailed funding measures other than the commitment to a major investment program to be partly funded by savings measures outlined in what is now the Strategic Reform Program (SRP).[41] The 2009 White Paper devotes only a page and a half to funding expressed in 'broad brush statements of average percentage growth to the budget, and imperatives about savings (or cost redirections) intended to balance the books'.[42] Mr Barrie stated that the lack of funding information in the White Paper was:

> …exceedingly disappointing because it seriously undermines the centrality of the White Paper in guiding decision making, and the purpose of the quinquennial approach of writing Defence White Papers.[43]

3.35 ASPI's *Defence Budget Brief 2009–10* noted in this regard that:

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39 Department of Defence, *Defence Capability Plan,* public version, 2012, p. 210.

40 Chris Barrie, 'The Defence White Paper 2009 and Australia's Maritime Capabilities', *Security Challenges*, vol. 5, no. 2 (Winter 2009), p. 53.

41 Chris Barrie, 'The Defence White Paper 2009 and Australia's Maritime Capabilities', *Security Challenges*, vol. 5, no. 2 (Winter 2009), p. 58.

42 Chris Barrie, 'The Defence White Paper 2009 and Australia's Maritime Capabilities', *Security Challenges*, vol. 5, no. 2 (Winter 2009), p. 58.

43 Chris Barrie, 'The Defence White Paper 2009 and Australia's Maritime Capabilities', *Security Challenges*, vol. 5, no. 2 (Winter 2009), p. 53.

> It's disappointing, therefore that 'the most comprehensive White Paper of the modern era' has been followed by the least comprehensive Defence budget papers of the past decade. Between the White Paper and the Defence budget papers we are offered only the barest details of how the government will fund its expansive plans for the defence force. Despite claiming to have a 'fully costed' and 'affordable' financial plan stretching twenty-one years out to 2030, actual funding has only been disclosed for the first four.[44]

3.36 When questioned at Senate Estimates in June 2009, the then CDF, Air Chief Marshal Angus Houston, stated that it would cost somewhere between $245 and $275 billion (in 2009–10 budget dollars) to realise *Force 2030*.[45] Dr Thomson argued that despite claims that the 2009 White Paper is fully funded and affordable, information relating to long-term funding and the costs of proposed major acquisitions remains confidential. There was, for example, no official estimate of the cost of the future submarine project beyond the DCP figure of 'greater than $10 million'.[46] Yet, estimates provided by Sean Costello and Andrew Davies suggest that the actual cost will be approximately $36 billion (in 2009 dollars) based on historical trends.[47] Dr Thomson continued that:

> Not only does this make it hard to assess the prospects of delivering the much-vaunted Force 2030, but it's a marked departure from the transparency accompanying the 2000 White Paper.[48]

3.37 Dr Thomson concluded that the absence of concrete schedule targets for initiatives in the White Paper was a means to avoid being held to account for delivering the plan.[49] Moreover, information on the planned cost of projects above $1.5 billion in value is not disclosed. Therefore, the public are not in a position to judge whether some planned acquisitions including the future frigates represents value for money.[50] According to Dr Thomson, there has been 'erosion in transparency' in

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44 Australian Strategic Policy Institute, *The Cost of Defence. ASPI Defence Budget Brief 2009-10*, p. vii.

45 Air Chief Marshal Angus Houston, Senate Foreign Affairs, Defence and Trade Legislation Committee, Estimates, *Committee Hansard*, 3 June 2009, p. 111. See also The Chief of the Defence Force and the Secretary of Defence, 'Strategic Reform Program Media Roundtable' transcript, 16 April 2010, http://www.defence.gov.au/media/SpeechTpl.cfm?CurrentId=10155 (accessed 1 March 2012).

46 Mark Thomson, *Serving Australia: Control and administration of the Department of Defence*, Special Report, Australian Strategic Policy Institute, June 2011, issue 41, p. 41.

47 Sean Costello and Andrew Davies, *How to buy a submarine: defining and building Australia's future fleet*, Australian Strategic Policy Institute, October 2009, p. 2.

48 Mark Thomson, *Serving Australia: Control and administration of the Department of Defence*, Special Report, Australian Strategic Policy Institute, June 2011, issue 41, p. 41.

49 Mark Thomson, 'Defence Funding and Planning: Promises and Secrets', *Security Challenges*, vol. 5, no. 2. (Winter 2009), p. 96.

50 Leigh Purnell and Mark Thomson, *How much information is enough?* The disclosure of defence capability planning information, prepared by the Australian Strategic Policy Institute under contract to the Australian Department of Defence, December 2009, p. 40.

relation to the DCP over the period 2001–2009 with 'progressively greater clouding of both schedule milestones and cost estimates'. Despite an independent external review in 2009 recommending considerably greater transparency, Dr Thomson argued that only marginal improvements had been made and that:

> As things stand, the cost of a planned project can increase by hundreds of millions of dollars and its timing can slip by years, without the taxpayer being any the wiser.[51]

3.38 Dr Davies and Dr Thomson observed:

> A comprehensive examination of the disclosure of capability planning information was undertaken by ASPI in 2009 (Purnell and Thomson, 2009). Unfortunately, the government only partially accepted the recommendations. As a result, Defence continues to avoid scrutiny by obscuring costs and timings.[52]

3.39 Furthermore, the public defence budget is also subjected to repeated changes which makes it almost impossible to understand how costs have changed and how funding is being spent specifically. As Dr Thomson noted:

> Apart from making it difficult to assess the efficiency of the department, this prevents the external verification of more than $20 billion in saving being claimed under the Strategic Reform Program.[53]

3.40 In light of concerns about transparency, Dr Richard Brabin-Smith suggested that there was scope to increase the usefulness of the Portfolio Budget Statements (PBS) as they 'omit any worthwhile discussion of content'. Similarly, he argued in favour of greater explanation in the Defence Annual Reports which tend to be 'general and descriptive'.[54]

3.41 Mr Derek Woolner observed that in the absence of increased defence funding, achieving all the objectives of *Force 2030* would become very difficult and 'aligning acquisition with central objectives for strategic policy increasingly important'. He stated that a more open and contested process for making decisions should contribute in turn to better policy outcomes and provide the Parliament, for the first time with a meaningful role in the process.[55] This could be in the form of a Defence Board which would provide a forum for dissenting voices and for contesting proposals, schedules and costings. The minister would sit on this board.

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51 Mark Thomson, *Serving Australia: Control and administration of the Department of Defence,* Special Report, Australian Strategic Policy Institute, June 2011, issue 41, p. 41.

52 Andrew Davies and Mark Thomson, *Submission 8*, p. 3.

53 Mark Thomson, *Serving Australia: Control and administration of the Department of Defence,* Special Report, Australian Strategic Policy Institute, June 2011, issue 41, p. 41.

54 Dr Richard Brabin-Smith, *Submission 2*, p. 5.

55 Mr Derek Woolner, *Submission 34,* p. 11.

3.42 In July 2011, the Minister for Defence announced a series of initiatives associated with, or in addition to, the ongoing SRP including that of 'improving and reforming Defence's planning and budgeting process'.[56] The initiative was triggered by the $1.6 billion underspend for the 2010–11 financial year which, according to the minister, 'represented a significant failure in Defence's planning and budgeting processes'. The underspend, however, could also be due to the failure of government to make timely decisions. With regard to the underspend, ASPI's 2011 Budget Brief held that:

> If Defence couldn't predict what it needed for this year's budget, it's hard to accept claims of multi-billion savings years ahead based on a long-range understanding of business-as-usual costs.[57]

3.43 While recognising as essential the need to improve Defence's budget estimation process, the minister, in his announcement, emphasised that defence funding must be based on realistic and reliable forecasts. The minister noted that a 'comprehensive stocktake and health check of the Defence budgeting system' was to be undertaken which would consider 'all budget processes, estimation methods and underlying budget assumptions'. In addition, the minister highlighted that Defence had been instructed to 'consider ways in which more reliable information on defence costs, savings and performance could be made public to enable enhanced transparency, scrutiny and analysis'.[58]

3.44 Based on the number of previous reviews that have not produced tangible positive improvements, the committee is not confident that this latest one will be any different. Even so, the committee suggests that this stock take and health check consider how to ensure that individuals within this organisational structure, made up of an excessive number of groups, are made accountable for the elements of the budget they hold or use.

New Defence White Paper

3.45 On 3 May 2012, the government announced that it was bringing forward the development of a new defence white paper a year earlier than planned for delivery in the first half of 2013. The paper would take into account Australia's place in the region, economic issues and the drawdown of forces from Afghanistan, East Timor

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56 Minister for Defence, the Hon. Stephen Smith MP, 'Paper presented to the Australian Strategic Policy Institute', National Gallery, Canberra, 19 July 2011, http://www.minister.defence.gov.au/2011/07/19/paper-presented-by-the-minister-for-defence-stephen-smith-to-the-australian-strategic-policy-institute-national-gallery-canberra/ (accessed 1 December 2011).

57 Mark Thomson, *The Cost of Defence, ASPI Defence Budget Brief 2011-2012*, May 2011, p. viii.

58 Minister for Defence, the Hon. Stephen Smith MP, 'Paper presented to the Australian Strategic Policy Institute', National Gallery, Canberra, 19 July 2011.

and the Solomon Islands.[59] The government identified ten core capabilities in the 2009 White Paper to which it remained committed, including the future submarine, JSF and AWD projects. The multi-role combat vessel project is in the 2012 DCP.

3.46 Five days later, on 8 May 2012, the Defence budget was released for 2012–13 with a $5.454 billion cut across the forward estimates starting with $971 million in 2012–13.[60] ASPI's Budget Brief observed:

> This year's cuts are just the last in a long line of hits that the Defence budget has taken since the release of the 2009 Defence White Paper. To date, $10.6 billion worth of promised funding from the first five years of White Paper has been deferred to parts unknown in the future, $10 billion in savings (above and beyond those promised by the SRP) have been cut from funding promised between 2011 and 2021, and another $2.5 billion of new initiatives over the decade have been imposed upon Defence without funding or offsets. Yet, somehow, over the past three years Defence has managed to hand back $1.6 billion in unspent funds.[61]

3.47 Responding to the announcement of a new white paper, ASPI's Budget Brief observed that the prospects for delivering *Force 2030* before the assigned deadline had been remote for some time. The brief argued that, at a minimum, the 2013 White Paper must do three things which the 2009 White Paper failed to do, including:

- make a clear choice about Australia's strategic role in the future;
- design a defence force that is consistent with that role; and
- commit the necessary resources to the task.[62]

3.48 The brief also took the view that the government's commitment in relation to the submarines was 'wavering—with the White Paper's vision of highly capable new-generation submarines now being evaluated against less capable and far less expensive existing off-the-shelf designs'.[63] It concluded that Defence had not been able to deliver new equipment projects at the pace envisaged in the 2009 White Paper and that the decade-long financial plan at the heart of the 2009 White Paper was flawed, 'having been built on an incomplete understanding of the true cost of developing and delivering capability'.[64]

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59 Prime Minister, Minister for Defence and Minister for Defence Materiel, Joint Press Conference, Canberra, 3 May 2012, http://www.minister.defence.gov.au/2012/05/03/prime-minister-minister-for-defence-minister-for-defence-materiel-joint-press-conference-canberra-2/ (accessed 19 June 2012).

60 Mr David Lewis, *Committee Hansard,* Estimates, 28 May 2012, p. 6.

61 Mark Thomson, *The Cost of Defence, ASPI Defence Budget Brief 2012–13*, May 2012, p. vii.

62 Mark Thomson, *The Cost of Defence, ASPI Defence Budget Brief 2012–13*, May 2012, p. ix.

63 Mark Thomson, *The Cost of Defence, ASPI Defence Budget Brief 2012–13*, May2012, p. ix.

64 Mark Thomson, *The Cost of Defence, ASPI Defence Budget Brief 2012–13*, May 2012, p. vii.

Committee view

3.49 The committee recognises the importance of both accuracy and transparency in relation to the Defence budget and strongly encourages initiatives that deliver both to the budget. The committee's concerns in relation to the accuracy of Defence costings are reflected throughout this report in terms both of the overall budget and individual projects. In relation to transparency, the committee emphasises that greater detail needs to be provided in the White Paper, PBS and Defence Annual Reports. The committee urges the government to ensure that the 2013 White Paper heeds the criticism levelled at its predecessor and provides clarity on future capability including funding commitments underpinned by comprehensive analysis that defence analysts have been calling for.

Slippage of approval rate at first and second pass

3.50 A number of defence analysts have also expressed concern about the rate of approval at first and second pass and the implications of a delayed process on meeting the Defence objectives contained in the 2009 White Paper. Dr Thomson and Dr Davies stated in April 2011:

> Despite concerted attempts to obscure the planned schedule for the acquisition and entry into service of capabilities set out in the 2009 Defence White Paper, it was clear that things were slipping behind schedule as early as May last year (Thomson, 2010). Since then, the situation has deteriorated further.[65]

3.51 The Executive Director of ASPI, Major General (retired) Peter Abigail stated in August 2011 that *Force 2030* would 'probably be delivered late' and that:

> The deferrals of billions of dollars in procurement funding and delays in decision-making for major capability projects have already put the Defence Capability Plan well behind schedule. The bow-wave of unspent funds now laying five-to-ten years out dwarfs the expenditures achieved over recent years.[66]

3.52 In its Defence Brief of May 2012, APSI noted that while only three years had passed after the 2009 White Paper, major equipment acquisition projects were not being approved or delivered on schedule even after a 2011 rescheduling.[67] Reporting on progress against the last publicly released DCP from 2011, it recognised that the rate of second-pass approvals had improved considerably in 2011–12 but that first-pass approvals remained 'badly behind schedule' which had created what it described

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65 Andrew Davies and Mark Thomson, *Submission 8*, p. 2.

66 Major General (retired) Peter Abigail, 'Australia's Next Defence White Paper: An ASPI Update', Address to Global Forces 2011 Conference, 11 August 2011, p. 8, http://www.aspi.org.au/mp3/conference2011/Abigail_AU_next_defence_white_paper.pdf (accessed 18 January 2012).

67 Mark Thomson, *The Cost of Defence, ASPI Defence Budget Brief 2012–13*, May 2012, p. 118.

as a 'bow wave' of approvals over the next few years. In relation to the approval rate overall, the brief concluded that:

> Not all of the problems with the 2011 version of the DCP reflect the accumulated impact of slow approvals. As we showed in detail last year, the original 2009 DCP contained a manifestly unrealistic pattern of planned approvals. The initial decade of the *Force 2030* venture was doomed from the start.[68]

3.53 From the beginning of the committee's inquiry, there has been a growing chorus of concern from submitters including defence analysts, defence industry and former defence personnel suggesting that there were serious problems in relation to schedule slippage. The Returned and Services League of Australia Limited (RSL) stated that the procurement procedures outlined in the White Paper were failing and that the DCP required first or second pass approval by the National Security Committee of Cabinet (NSCC) of some 50 projects a year or about 5 meetings but that the current average was less than 10 a year. The RSL argued that the now laborious capability process has resulted in their being 'no possible chance of the current Defence Capability Plan being achieved'.[69] The Victorian Government held that $8.5 billion in Defence spending had been deferred since the release of the 2009 White Paper. As additional evidence of the slippage or slow down in the procurement process, it noted that in 2007–08 the value of defence projects approved by government was $26.5 billion while in the three years from 2008–09 to June 2011, the value of projects approved was likely to fall below $10 billion.[70] To amplify this point, the Victorian Government pointed out that the initial schedule to meet the timetable of the 2009 DCP 'required a total of 60 project approvals (first and second pass), while the actual number approved was 25'.[71]

3.54 When Defence returned $1.6 billion of unspent funding in mid-2011, it became apparent to many defence analysts that the schedule for modernising the ADF articulated in the 2009 White Paper had fallen so far behind 'as to be implausible'.[72] James Brown, Military Fellow at the Lowy Institute, held that Australia's defence capability was on a 'steady downward trajectory' and that:

> The equipment-purchasing schedule required to achieve Force 2030 was presumably finely calibrated with defence industry capacity. Defence is now struggling to keep up. That problem is only going to get worse thanks to a recent decision to put all minor projects (those worth $8-20 million) through the detailed two-pass approval process. That adds 105 minor

68 Mark Thomson, *The Cost of Defence, ASPI Defence Budget Brief 2012–13*, May 2012, p. 119.

69 The Returned and Services League of Australia, *Submission 5*, p. 1.

70 Victorian Government, *Submission 27*, p. 5.

71 Victorian Government, *Submission 27*, p. 5.

72 Mark Thomson, *Serving Australia. Control and administration in the Department of Defence*, Special Report, Australian Strategic Policy Institute, June 2011, issue 41.

> projects to the existing 140 major projects waiting to be submitted to Government for approval.[73]

3.55 Mr Woolner noted that the 2011–12 Budget saw a substantial change of policy for the funding of Defence's acquisition emanating from continued underspending on major capital equipment programs. He held that:

> The accumulation of problems within individual acquisition projects has compounded and has come to be represented by a continuing failure to spend annual appropriations for major military equipment and to achieve the future spending levels projected in the additional estimates. There is now evidence sufficient to suggest that this trend in acquisitions management threatens the achievement of central policy objectives.[74]

3.56 In stark contrast, however, Defence Secretary, Mr Duncan Lewis informed the committee on 13 June 2012 that:

> We are improving outcomes in delivering Defence capability. There were a record number of government project approvals last year: 49 projects approved, in contrast to 28 projects approved the year before...Since 2000 there has been a doubling of the number of projects delivered on time. Schedule slippage has been reduced from 50 per cent in the year 2000 to about 30 per cent in 2007 and continues to improve.[75]

3.57 In this regard, the committee notes the rather confused message about approval rates especially Defence's use of the term. During evidence, Air Marshal Harvey noted that nine projects had been approved in the first three months of 2011 and, together with other projects in the pipeline progressing to government, 'would give a strong indication that Defence would get well above that 28 project approval for the year. He then referred to the 28 approvals in terms of first pass, second pass, combined passes and other passes associated with projects such as intermediate passes.[76]

3.58 It would seem that only a fraction of the approvals have led to funds flowing to industry. Most were interim approvals that just served to keep the process going. As mentioned earlier, Dr Thomson noted in his 2012 Defence Budget Brief that the pace of second-pass approvals had improved substantially in 2011–12, 'although some of the approvals were "one-off" non-DCP projects'. Even so, he found that first-pass approvals were 'badly behind and overall:

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73 James Brown, 'ADF: Aspirational Defence Force', Lowy Institute for International Policy, 12 May 2011, http://www.lowyinterpreter.org/post/2011/05/12/Force-2030-An-Aspirational-Defence-Force-(ADF).aspx (accessed 23 January 2012).

74 Derek Woolner, *Submission 34*, p. 14.

75 Mr Duncan Lewis, Secretary, *Committee Hansard*, 13 June 2012, p. 21.

76 *Committee Hansard*, 7 October 2011, p. 31.

> On the basis of recent experience, the planned approval of projects is manifestly unachievable.[77]

3.59 The committee notes Defence's assurance about increased approval rates but has no confidence, based on performance to date, that it represents any real improvement. In fact, such statements may be an expression of optimism which infects Defence explanations. The committee therefore remains extremely concerned at project schedules and the worsening pattern of delay.

Reason for delayed approval rates

3.60 To this stage, the committee has established that there are delays in project approval but without any real understanding of the cause or causes such as:

- Defence not confident that they have reduced risk enough to present submission to Minister/Cabinet; or
- Minister unwilling to make decision or unable to get priority for Cabinet to consider.

3.61 In the committee's view, only when the opportunity cost of delays is identified (transparently) will there be pressure to:

- have the key stakeholders meet and use the Projects of Concern resolution approach to agree a costs/capability/schedule/risk trade-off such that the submission can be ready for Cabinet in accordance with the agreed (DCP) schedule; and
- have Cabinet make it a priority to consider defence capability issues.

3.62 The slow rate of approvals has a particular effect on industry. It undermines industry's confidence in Defence planning and compounds the difficulties caused by uneven flows in demand. This matter is considered in greater depth in chapter 14.

Committee view

3.63 The White Paper sets in train an acquisition program that has a life spanning many decades, involves a huge amount of taxpayers' funds, has serious implications for Australia's serving personnel and ultimately the nation's strategic wellbeing. It is important that this 'corner-stone document' is based on thorough analysis and serious deliberation so that it provides the firmest of foundations for Australia's future defence force. The committee is concerned that, despite lessons to be learnt from advanced projects, some of the newer ones in the White Paper have not received the appropriate amount of consideration, including consultation with subject matter experts and defence industry. This lack of expert independent advice and contestability at this

77 Mark Thomson, *The Cost of Defence, ASPI Defence Budget Brief 2012–2013,* May 2012, p. 119.

early stage means that decisions may have been made without the benefit of rigorous analysis or industry experience.

3.64 The scant information provided on funding Australia's acquisition program and the slow rate of approval underscores the importance of the government ensuring that despite the time pressure, the 2013 White Paper presents a detailed, realistic and achievable plan for Australia's capability development program.

Recommendation

3.65 The committee recommends that the 2013 White Paper is prepared in such a way that all procurement proposals are costed and scheduled realistically and that Defence undertake comprehensive consultation with industry before decisions on inclusion are made, or alternately, a green paper is issued in advance for broader and open public consultation.

Recommendation

3.66 The committee recommends that commencing next financial year, Defence publishes as an addendum to its portfolio budget statements, all the current financial detail of planned capability from the time of inclusion in the DCP, right through to contract completion and provision for sustainment, for all projects over $30 million for total procurement and lifelong sustainment.