The Senate

Economics References Committee

Part I

Future of Australia's naval shipbuilding industry
Tender process for the navy's new supply ships

August 2014

ISBN 978-1-76010-070-4

Printed by the Senate Printing Unit, Parliament House, Canberra.

Senate Economics References Committee

Members

Senator Sam Dastyari (Chair from 2 July 2014)	New South Wales, ALP
Senator Mark Bishop (Chair until 1 July 2014)	Western Australia, ALP
Senator Sean Edwards (Deputy Chair from 2 July 2014)	South Australia, LP
Senator David Bushby (Deputy Chair until 2 July 2014)	Tasmania, LP
Senator Matthew Canavan (from 1 July 2014)	Queensland, LNP
Senator the Hon. Kim Carr (from 1 July 2014)	Victoria, ALP
Senator Chris Ketter (from 1 July 2014)	Queensland, ALP
Senator Louise Pratt (until 1 July 2014)	Western Australia, ALP
Senator John Williams (until 1 July 2014)	New South Wales, NATS
Senator Nick Xenophon	South Australia, IND

Senator participating in this inquiry

Senator the Hon. Stephen Conroy	Victoria, ALP

Secretariat

Dr Kathleen Dermody, Secretary
Ms Morana Kavgic, Administrative Officer

PO Box 6100
Parliament House
Canberra ACT 2600
Ph: 02 6277 3540
Fax: 02 6277 5719
E-mail: economics.sen@aph.gov.au
Internet: www.aph.gov.au/senate_economics

TABLE OF CONTENTS

Acronyms and abbreviations

ADF	Australian Defence Force
ADI	Australian Defence Industries
AIDN	Australian Industry and Defence Network Inc.
AMWU	Australian Manufacturing Workers' Union
ANAO	Australian National Audit Office
AOR	Auxiliary Oiler Replenishment
ASC	ASC Pty Ltd, formerly Australian Submarine Corporation
ASPI	Australian Strategic Policy Institute
AWD	Air Warfare Destroyer
CDF	Chief of the Defence Force
CEO	Chief Executive Officer
CIR Div	Capability Investment and Resources Division
CGT	Compensated Gross Tonnage
CPRs	Commonwealth Procurement Rules
CS Div	Capability Systems Division, Capability Development Group
DCP	Defence Capability Plan
Defence	Australian Defence Organisation
DMO	Defence Materiel Organisation
DSME	Daewoo Shipping and Marine Engineering
FFG	Guided Missile Frigate
FMI	First Marine International
FMS	Foreign Military Sales
FSC	US Federal Supply Codes
GDP	Gross Domestic Product

HMAS	Her Majesty's Australian Ship
IMO	International Maritime Organization
JSF	Joint Strike Fighter
LCS	Littoral Combat Ship
LHD	Landing Helicopter Dock ship
LPA	Landing Platform Amphibious transport
MSI	Mission Systems Integrator
NPOC	Net Personnel and Operating Costs
NSC	National Security Committee of Cabinet
PP	Production Package
RAN	Royal Australian Navy
RAS	Replenishment at Sea
RFT	Request for tender
RINA	Royal Institution of Naval Architects
SME	Small and medium sized enterprises
TLS	Through-life support
UK	United Kingdom
US	United States of America
VERTREP	Vertical Replenishment
VFM	Value for money

Executive Summary

On 6 June 2014, the government announced that it had given approval for Defence to conduct a limited competitive tender between Navantia of Spain and Daewoo Shipbuilding and Marine Engineering of South Korea for the construction of two replacement Auxiliary Oiler Replenishment ships (AOR). The Minister for Defence claimed that the decision to exclude Australian companies from the tender and involve only two overseas companies was due to: the urgent need to replace the vessels and avoid a capability gap; the current low productivity of shipbuilders involved with the Air Warfare Destroyer (AWD) project; and value for money considerations.[1]

Although the committee has only started its inquiry into the future sustainability of Australia's strategically vital naval ship building industry, its consideration of the proposed tender process for the supply ships has highlighted a number of concerns.

They relate to the lack of contestability and competition in the limited tender, the level of industry engagement in the process so far and the absence of long-term strategic planning that led to the decision.

As such, the committee recommends that:

- the tender process for the two replacement replenishment ships be reopened to include Australian companies;
- the government undertakes open tender processes for any future naval acquisition.
- the tender must make clear that a high value will be placed on Australian content in the project.

Capacity

The committee heard that local major shipyards could be upgraded to build the supply ships in Australia. Furthermore, the relatively small upfront costs for the improvements should not be considered in isolation but with a view to the long term benefits, especially when such infrastructure is regarded as a fundamental input to capability. The committee has heard that such an investment would support the construction in Australia of large vessels, including the supply ships, and that long term dividends would result from such investment. By excluding Australian companies from the tender, the government has not allowed these matters, including the amount of investment required to upgrade current facilities and the long-term benefits of this investment, to be fully explored and contested.

It should be noted that investment in infrastructure in Australian shipyards becomes a permanent asset and builds on the considerable infrastructure that already exists. Defence, in collaboration with industry, should consider undertaking a complete and

1 'Minister for Defence—Boosting Australia's maritime capabilities', 6 June 2014, http://www.minister.defence.gov.au/2014/06/06/minister-for-defence-boosting-australias-maritime-capabilities/

thorough audit or stocktake of Australia's shipyard infrastructure and incorporate the findings into a strategic plan for future naval shipbuilding.

Urgency

A number of witnesses put forward proposals that could address the urgency of the purchase, without having to resort to a limited tender that excludes Australian ship builders. They include a modular build for the supply ships in Australia or a hybrid build to include both Australian and overseas ship builders. The committee is concerned that the government's delay in making a decision to acquire the vessels following the election has led it to select a tender process that prevents an open, competitive and indeed, fairer process.

Productivity

Evidence provided to the committee indicates that the government has an overly simplistic understanding of the factors driving productivity in the ship building industry. The committee heard that the productive performance on the Air Warfare Destroyer (AWD) project was well within what was expected to be world's best practice. As the work on the AWD vessels progresses and the skills base and experience continues to develop, further productivity gains could be anticipated.

The committee heard that the Defence Minister used the findings of the independent, but not publically available, review of the AWD program undertaken by Professor Don Winter and Dr John White as justification for excluding Australian companies from the supply ship tender.

Given the strategic importance of the naval ship building industry to Australia and the importance of the analysis contained within that report to the future of the industry, the committee recommends that the government release this report in full.

National security

National security concerns are central to any consideration of Australia's naval shipbuilding industry, as well as the priority that should be given to developing and retaining the skill base and experience to support that industry.

The committee looked at the much broader economic benefits that accrue from a local build or Australian involvement in the production of a naval vessel. They include the development and maintenance of a highly skilled workforce, the benefits that innovation brings to the wider economy and the economic and employment growth that flow from investment in research and development.

The committee also recognises the importance of having the skills base, experience and local know-how necessary to support the Royal Australian Navy's vessels through their operational life. This self-reliance is central to Australia's interests.

Defence industry policy and decision to conduct limited tender

The Department of Defence has a defence industry policy that recognises the vital contribution Australian industry makes to Australia's security. Among other things, the policy seeks to increase opportunities for Australia's defence industry to identify and make the most of business opportunities and to compete for acquisition projects.

The procurement process for the supply ships shows no evidence that Defence consulted with industry or encouraged open discussion about possible Australian engagement with the project.

Indeed, it appears as though local shipyards were shut out of all consideration.

The committee is of the view that Defence should have consulted with local shipyards and allowed them to present their case when it comes to building the supply ships in Australia.

The way in which the decision for a limited tender was taken and announced was a significant blow to Australian industry. The lack of consultation was at odds with Defence's stated industry policy objectives, which seek to promote competitive, collaborative and innovative industry.

Decisions, such as the acquisition of the supply ships, are extremely important for both Defence capability and for the sustainability of Defence industry in Australia. They involve huge amounts of taxpayers' money and have long-term implications for Navy's future procurement strategies and, importantly, its capability. Such decisions should be well considered and based on sound research and analysis.

A local vibrant and sustainable industry able to support navy vessels throughout their operational lives is critical to Australia's national interest. In this regard, the prime contractors in Australia and the many SMEs engaged in naval shipbuilding need to have certainty and the confidence to continue to invest and participate in the industry.

The way in which the tender process was announced and the exclusion of Australian industry from this process has clearly undermined this confidence.

The committee is not convinced that a limited tender involving only two companies is the best way to obtain the necessary information to proceed to second pass.

The committee makes the following recommendations:

Recommendation 1

9.16 The committee recommends that the tender process for the two replacement replenishment ships:

- **be opened up to allow all companies, including Australian companies, to compete in the process; and**
- **make clear that a high value will be placed on Australian content in the project.**

Recommendation 2

9.17 The committee recommends further that the government require that an open tender process be used for any future naval acquisitions.

Recommendation 3

9.18 The committee notes that Defence has identified areas where potential exists for Australian industry to become involved as sub contractors in the replenishment ship project. In this regard, the committee recommends that Defence become actively involved in encouraging and supporting Australian industry to explore such opportunities.

Recommendation 4

9.19 The committee recommends that the government release the report of the independent review of the AWD program undertaken by Professor Don Winter and Dr John White.

Chapter 1

Introduction

1.1 On 25 June 2014, the Senate referred the matter of the future of Australia's naval shipbuilding industry to the Senate Economics References Committee for inquiry and report by 1 July 2015. The term of reference for the inquiry is straightforward yet comprehensive in its coverage—the future sustainability of Australia's strategically vital naval ship building industry.

1.2 As part of this broad inquiry into Australia's naval shipbuilding industry, the committee resolved to inquire into the tender process for the Royal Australian Navy's (RAN) new supply ships as its first order of business. On 10 July 2014, the committee adopted the following terms of reference for the first part of its inquiry:

1.3 The tender process for the RAN's new supply ships and, given the significant impact that this decision will have on the Australian shipbuilding industry, in particular:

- the reasons for the Government's decision in June 2014 to exclude Australian-based defence industry from tendering for the replacement of HMAS *Success* and HMAS *Sirius*, and instead have a restricted tender for Spanish and South Korean shipbuilders;
- the capacity of Australian shipbuilding to carry out, in part or in full, the construction and fit-out of two auxiliary ships to replace the Navy's HMAS *Success* and HMAS *Sirius*;
- the role of the Department of Finance and/or Department of Treasury and/or Department of Defence, the Finance Minister and/or the Treasurer and/or the Defence Minister, in the Government's decision to exclude Australian defence industry from tendering for the auxiliary ship replacement project;
- the feasibility of including Australian industry participants in the tender process for the replacement auxiliary ships;
- the management and performance of DMO that contributed to the Government's decision to exclude Australian industry from tendering for the replacement auxiliary ships; and
- any related matters.

1.4 The committee determined that it would report on this first part of its inquiry by 27 August 2014. With regard to Part 1 of this inquiry, the committee called for submissions to be lodged by 17 July 2014 in time for its public hearing on 21 July 2014. For the second part of the inquiry, the committee set down 1 December 2014 as the closing date for submissions.

Conduct of inquiry

1.5 The committee advertised its inquiry on its website and in the *Australian*. The committee sought views directly from a range of people interested in the future of Australia's naval shipbuilding and repair industry. In particular, it wrote to, and invited, submissions from shipbuilders, suppliers, unions, professional associations and individuals engaged in the shipbuilding industry such as engineers and architects as well as academics including economists. The committee also invited state governments and relevant Commonwealth government departments to lodge written submissions. In drawing attention to the inquiry, the committee noted its intention to examine the tender process for the supply ships as a priority. Although this report deals only with the tender process for the supply ships, it lays the foundations for the committee's broader inquiry into the sustainability of Australia's naval ship building industry.

Submissions

1.6 The committee received 15 submissions for its inquiry into the tender process for the two supply ships, as well as additional information, listed at Appendix 1. On 21 July 2014, the committee held a public hearing in Canberra. A list of witnesses is at Appendix 2.

Background to inquiry

1.7 Over many years, Defence procurement has been subjected to regular, extensive and in-depth examinations that have revealed deficiencies in the processes for acquiring major military equipment. These revelations have often been followed by a period of reform to rectify perceived inadequacies. Indeed, in December 2011, the Senate Foreign Affairs, Defence and Trade References Committee, which was inquiring into procurement procedures for Defence capital projects, spoke of Defence being caught in an 'endless merry-go-round of reviews and implementation programs'.[1] In its 2014 report, the Commission of Audit also noted that the efficiency and effectiveness of Defence capability development and procurement processes had been 'a long standing issue, commented on by previous reviews'.[2] The numerous independent reviews undertaking over recent years into Defence procurement involving naval acquisitions include:

- *Report of the Defence Procurement Review*, 15 August 2003 (Kinnaird Review);

---

1 Foreign Affairs, Defence and Trade References Committee, *Procurement procedures for Defence capital projects*, Preliminary report, December 2011, p. xiii.

2 National Commission of Audit, *Towards responsible government*, Appendix to the report of the national commission of audit—volume 1, 9.8 Defence and national security, p. 9 of 21, http://www.ncoa.gov.au/report/appendix-vol-1/9-8-defence-and-national-security.html (accessed 8 August 2014).

- *Going to the Next Level: The Report of the Defence Procurement and Sustainment Review*, 2008 (Mortimer Review);
- 2008 Audit of the Defence Budget, 3 April 2009 (Pappas Report);
- *Review of the Defence Accountability Framework*, January 2011 (Black Review);
- *Plan to Reform Support Ship Repair and Management Practices*, July 2011 (Rizzo Report);
- *Collins Class Sustainment Review*, Phase 1 Report, 4 November 2011 (Coles Review); and
- *Study into the Business of Sustaining Australia's Strategic Collins Class Submarine Capability*, November 2012, report issued by Mr John Cole.

1.8 The Senate Foreign Affairs, Defence and Trade Committee undertook a comprehensive inquiry into Australia's naval shipbuilding industry in 2006 and more broadly into defence procurement, which included the acquisition of naval ships, in 2011–12. The Australian National Audit Office (ANAO) also regularly conducts performance audits into major defence acquisitions, including.

- ANAO Major Projects reports; and
- ANAO Performance Audit reports, including the recent audit of the Air Warfare Destroyer (AWDs)—Audit Report No. 22 2013–14 Performance Audit, *Air Warfare Destroyer Program*, March 2014.

Decision to inquire into the limited tender for two replenishment vessels

1.9 Australia's naval shipbuilding history has witnessed the delivery of large, complex and technically difficult projects with varying degrees of success. HMAS *Success* was built in Australia but when finally commissioned in 1986, was well over budget and late. The Australian Frigate Project was also constructed locally and after initial difficulties succeeded in its prime objective of re-establishing a major warship capability in Australia during the early 1990s. The Collins-class submarines and the ANZAC class frigates, commissioned between March 1996 and June 2006, were also built in Australia. The latter project involved the design, construction, testing and trialling of ten vessels which were delivered on time and on budget with some frigates delivered ahead of schedule.[3]

1.10 Overall, Defence's programs for the procurement of major capital equipment, including important naval acquisitions, have been dogged by delays and cost overruns and in some cases projects have been abandoned. Problem projects involving naval projects have involved acquisitions from overseas and from Australia. For example:

3 See Foreign Affairs, Defence and Trade Committee, *Blue water ships: consolidating past achievements*, December 2006. Chapters 3 and 4 provide a brief history of Australia's naval shipbuilding industry.

- The Super Seasprite project was intended to acquire helicopters for the Navy's ANZAC ships. Having failed to deliver the required capability, the project was ultimately cancelled in March 2008 with a total expenditure of $1.4 billion.
- The LCM 2000 project was intended to purchase six landing watercraft that would transfer personnel and supplies from Navy's Landing Platform Ships (LPA) to shore. Originally approved in 1997, the watercraft project was placed on the projects of concern list in 2010 and eventually cancelled.
- The Guided Missile Frigate Upgrade project commenced in 1999 and was subsequently re-baselined in 2004 and 2006 due to delays. Also, the project scope was reduced from six to four ships. The operational release of the four ships was successfully completed in July 2011, representing delays of between 67 and 84 months. The Foreign Affairs, Defence and Trade References Committee suspected that 'the full story of incompetence on this project, including that of the contractor, will never be discovered'.[4]
- The Lightweight Torpedo Replacement project had a long history of project management difficulties.
- The Collins Class Submarine Reliability and Sustainability project designed to upgrade the Collins Class platform systems has exposed problems, some of which can be traced back to the initial acquisition phase.[5]

1.11 A number of recent developments have once again posed serious questions about the performance of major naval acquisitions, but more importantly about Australia's shipbuilding industry.

1.12 On 6 March 2014, the ANAO released its performance audit on the Australian Warfare Destroyers (AWDs) which was highly critical of the project. The public response to the ANAO report tended to focus on the project's poor performance. Media headlines spoke of cost blowouts, the bleak future facing Australian shipyards, with some referring to the looming 'valley of death' for the industry. At that time, the Minister for Defence also announced that the AWD program was to be added to the projects of concern list and would join five other ADF projects including the Collins Class Submarine Sustainment Program, which had been on the list since 2008.[6]

---

4 See Foreign Affairs, Defence and Trade References Committee, *Procurement procedures for Defence capital projects,* Final report, August 2012, paragraph 2.34.

5 See Foreign Affairs, Defence and Trade References Committee, *Procurement procedures for Defence capital projects,* Final report, August 2012. Chapter 2 gives a detailed account of the Super Seasprite, Landing Watercraft, Guided Missile Frigate Upgrade, Lightweight Torpedo Replacement and the Collins Class Submarine Reliability and Sustainability projects.

6 The projects of concern list was established in 2008 to focus the attention of the highest levels of government, Defence and industry on remediating problem projects. The Hon Stephen Smith, Minister for Defence, and the Hon Jason Clare MP, Minister for Defence Materiel, 'Projects of Concern—Update', 15 October 2010.

1.13 That same day, Senator the Hon Don Farrell, at the request of Senator the Hon Kim Carr, moved a motion in the Senate to recognise 'the vital contribution of the Australian shipbuilding industry as an employer, a storehouse of advanced manufacturing capabilities and a strategic asset'.[7] On 17 March 2014, members of the House of Representatives also spoke to a similar motion to recognise 'the proud naval shipbuilding history of Australia and to note that the ability to build and maintain naval ships was essential to Australia's defence capability.[8]

1.14 Almost three months later, on 4 June 2014, the Minister for Finance made a public statement raising further concerns about the AWD project. He stated that when the Coalition came into government, both he and the Minister for Defence were confronted with advice that the AWD program was in 'serious trouble'. Noting the critical importance of this program to national security, he explained that the project was experiencing significant delays in its delivery and considerable cost overruns. In his view, the government had inherited a deteriorating position and the project was about 21 months behind schedule. The Minister indicated that the problems encountered with the AWDs could have far-reaching implications for Australia's naval shipbuilding industry. He stated that everyone involved in this project was 'on notice':

> Unless we can get this back on track, unless we can demonstrate that we can build these sorts of ships competitively here in Australia, then we have problems for the shipbuilding industry for these sorts of ships here in Australia as a whole and we don't want to get into that situation. We want the industry as a whole to have the best possible opportunity to be successful in building and delivering these sorts of ships in the future on time and on budget.[9]

1.15 The Minister for Finance made clear that this was 'the final opportunity to get this right, there's no two ways about it'.[10]

1.16 Within days, the government announced that it had given approval for Defence to conduct a limited competitive tender process between Navantia of Spain and Daewoo Shipbuilding and Marine Engineering of South Korea for the construction of two replacement replenishment vessels based on existing designs. The Minister for Defence explained that the decision to conduct a limited tender involving only two overseas companies was due to the urgent need to replace the vessels and avoid a capability gap; the current low productivity of shipbuilders

---

7 *Senate Hansard*, 6 March 2014, p. 1089.

8 *House of Representatives Hansard*, 17 March 2014, pp. 1987–1995.

9 'Minister for Finance and Minister for Defence—Joint Press Conference—Review of the Air Warfare Destroyer program', 4 June 2014, p. 10, http://www.minister.defence.gov.au/2014/06/04/minister-for-defence-and-minister-for-finance-joint-press-conference-review-of-the-air-warfare-destroyer-program/ (accessed 4 August 2014).

10 'Minister for Finance and Minister for Defence—Joint Press Conference—Review of the Air Warfare Destroyer program', 4 June 2014, p. 10.

involved with the AWD project; and value for money considerations.[11] During his announcement, the Minister stated:

> Demonstrating that the AWD Program is able to provide value for money will be a crucial test for the Australian shipbuilding industry. No responsible Government could consider providing further work to an industry that is performing so poorly.[12]

1.17 It was in this context of mounting concern not only about the performance of the AWDs but more broadly about the future prospects for Australia's shipbuilding industry that the Senate referred the matter of Australia's naval shipbuilding to the committee.

1.18 As noted earlier, the committee resolved to inquire into the tender process for the new supply ships as a priority. In this report, the committee considers the need and importance of the supply ships to the Australian Navy, the capacity of Australian industry to build the ships and the contribution that such construction could make to sustaining Australia's naval shipbuilding industry.

Acknowledgements

1.19 The committee thanks all those who assisted with the inquiry, especially those who made written submissions and appeared before the committee at such short notice.

11 'Minister for Defence—Boosting Australia's maritime capabilities', 6 June 2014, http://www.minister.defence.gov.au/2014/06/06/minister-for-defence-boosting-australias-maritime-capabilities/ (accessed 4 August 2014).

12 'Minister for Defence—Boosting Australia's maritime capabilities', 6 June 2014.

Chapter 2

Proposed acquisition of two replenishment ships

2.1 The current fleet of Royal Australian Navy (RAN) replenishment ships consists of just two ships. One, HMAS *Success*, is smaller than most contemporaries, and is approaching her 30th birthday. The other, HMAS *Sirius*, is a converted civilian tanker but with limited capability.[1] The two vessels form the Afloat Support Force, which services the rest of the fleet by providing operational support in the form of fuel, stores, ammunition and equipment. This assistance allows the RAN to extend its reach and endurance. With Australia's maritime operations covering a vast area, it is essential that Australian naval vessels can be refuelled and replenished at sea by afloat support ships.[2] The ships also provide logistics support to land operations.

2.2 In this chapter, the committee provides background to the government's decision that the Navy needed to replace its existing replenishment vessels.

HMAS *Sirius*

2.3 In 2000, the government announced plans to replace HMAS *Westralia*, a converted commercial tanker, when it was due to complete its service in 2009, with a purpose built support ship. New maritime pollution rules and regulations introduced in the early part of the last decade, however, meant that HMAS *Westralia* would have to be decommissioned three years earlier than scheduled. The regulatory changes were based on the principle that 'singled-hulled vessels such as *Westralia* posed an unacceptable risk to the environment if their single skin hulls were breached' and should therefore be replaced by double-hulled tankers.[3] The project brought forward to replace HMAS *Westralia* was planned to start around 2004–05.[4]

2.4 Its replacement, HMAS *Sirius*, was built originally as a double-hulled commercial product tanker, MV Delos, and purchased by the Commonwealth

---

1 For example, see AMWU, *Submission* 4, p. 2; Andrew Davies, 'Shipbuilding and maritime projects', May 2014, Australian Strategic Policy Institute, http://web.archive.org/web/20140304100249/http://www.aspistrategist.org.au/shipbuilding-and-maritime-projects/# and Defense Industry Daily, 'Australia's Next Supply Ships: Serious about *Success*', 8 June 2014, http://www.defenseindustrydaily.com/australias-supply-ships-serious-about-success-024674/ (accessed 5 August 2014).

2 See for example, Navy, HMAS *Sirius*, https://www.navy.gov.au/hmas-sirius (accessed 6 August 2014).

3 For a full account of the regulatory changes and implications for HMAS *Westralia*, see DMO, *Getting Sirius A Project Manager's Story*, the acquisition and modification of an auxiliary oiler HMAS *Sirius*, 2008, pp. 19–21.

4 *Defence 2000: Our Future Defence Force*, Defence White Paper 2000, p. 90, http://www.defence.gov.au/publications/wpaper2000.pdf (accessed 8 August 2014).

Government on 3 June 2004 for A$52 million. The ship underwent modification for underway replenishment and, in addition, had a flight deck fitted for helicopter operations.[5] The ship was commissioned in September 2006. The purchase and conversion of the commercial oiler was, according to an ANAO report:

> …a striking example of the efficiency that can be gained from the purchase of 'off-the-shelf' products where that is appropriate for our capability requirements.[6]

2.5 The conversion of the vessel also provided 'a good example of achieving results in partnership with industry'.[7] Although only eight years old and with the capacity to carry 37,000 tonnes of cargo, the ship has limited capability.[8]

HMAS *Success*

2.6 The government also made known its intention in 2000 to replace the second support ship, HMAS *Success*, when it reached the end of its service life in 2015, with another ship of the same class. HMAS *Success* is an Auxiliary Oiler Replenishment (AOR) vessel of 18,000 tonne fully loaded and 157.2 metres in length. Based on the French 'Durance' Class Ship, HMAS *Success* was built in Australia by Cockatoo Dockyard Pty Ltd at Sydney, New South Wales.

2.7 The project to construct the ship ran into problems due to a protracted dispute between the Commonwealth and the Vickers Cockatoo Dockyard Pty Ltd over the drawings and specifications contained in the 'Production Package' (PP), which resulted in cost and time overrun. There was evidence that the Department of Defence significantly underestimated the extent of the differences between the original building specifications and the French PP. A 1983 Auditor-General's report criticised the department for failing to ensure that the French company had the PP needed for an Australian build. The construction of HMAS *Success* also suffered from industrial relations disputes and skills shortages.

---

5 Navy, 'HMAS *Sirius'*, https://www.navy.gov.au/hmas-sirius (accessed 6 August 2014).

6 Australian National Audit Office, Audit Report No.20 2006–07, Performance Audit, *Purchase, Chartering and Modification of the New Fleet Oiler*, Department of Defence, Defence Materiel Organisation, p. 13, http://anao.gov.au/~/media/Uploads/Documents/2006%2007_audit_report_20.pdf (accessed 6 August 2014).

7 Australian National Audit Office, Audit Report No.20 2006–07, Performance Audit, *Purchase, Chartering and Modification of the New Fleet Oiler*, Department of Defence, Defence Materiel Organisation, p. 13.

8 See AMWU, *Submission* 4, p. 2; Andrew Davies, 'Shipbuilding and maritime projects' May 2014, ASPI, http://web.archive.org/web/20140304100249/http://www.aspistrategist.org.au/shipbuilding-and-maritime-projects/# and Defense Industry Daily, 'Australia's Next Supply Ships: Serious about *Success'*, 8 June 2014, http://www.defenseindustrydaily.com/australias-supply-ships-serious-about-success-024674/ (accessed 5 August 2014).

2.8 HMAS *Success* was launched from its slipway on 3 March 1984 and commissioned into the RAN on 23 April 1986. She is the largest ship built in Australia for Navy and also the largest ever built in the port of Sydney.[9] The vessel is capable of 'day and night Replenishment at Sea (RAS) to ships alongside and concurrently by her embarked helicopter to other ships in company via Vertical Replenishment (VERTREP)'. The ship is fitted with four main RAS stations, two of which have dual functions and can be used to transfer either fuel or solid cargo.[10] According to Navy, HMAS *Success*:

> …enables RAN fleet units to operate with a greater degree of flexibility and independence from shore support than has previously been possible from other RAN sources.[11]

2.9 In 2000, when the government announced plans to replace its then two replenishment vessels, its strong preference was to build the replacement vessels in Australia.[12] Since 2000, no definite steps had been taken to replace HMAS *Success* until recently.

Strategic needs and analysis stage

2.10 The Defence White Paper is a key strategic document that presents the government's long-term strategic forecast and commitments for Defence including its future capability. The most recent White Paper (2013) outlined the capabilities that the ADF would need in the coming years to address strategic challenges. It announced that, as part of government's commitment to delivering core ADF capabilities, the capability provided by the supply ships HMAS *Sirius* and HMAS *Success* would be replaced at the first possible opportunity. The White Paper noted:

> Resupplying our deployed ships is an essential capability given the size of the area over which our naval forces operate and the extended periods they may be required to remain at sea.[13]

2.11 At that time, the Spanish Navy vessel *Cantabria* was assisting Australia's afloat support requirements while HMAS *Success* was in refit. According to the White Paper, this operational experience, together with other information and activity, would contribute to Defence's understanding of relevant capabilities as options for the

---

9 Navy website http://www.navy.gov.au/hmas-success-ii (accessed 6 August 2014).

10 Navy website, http://www.navy.gov.au/hmas-success-ii (accessed 6 August 2014).

11 Navy website, http://www.navy.gov.au/hmas-success-ii (accessed 6 August 2014).

12 *Defence 2000: Our Future Defence Force*, Defence White Paper 2000, p. 90, http://www.defence.gov.au/publications/wpaper2000.pdf (accessed 8 August 2014).

13 Department of Defence, *Defence White Paper 2013*, paragraph 8.59, http://www.defence.gov.au/whitepaper2013/docs/WP_2013_web.pdf (accessed 8 August 2014).

replacement ships. Defence indicated that it would examine options for local, hybrid and overseas build or the leasing of an existing vessel.[14] The White Paper explained:

> The range of procurement options will be considered by Government including the leasing of an existing vessel, the construction of an existing design, either wholly built overseas in the parent shipyard, other partial construction in both parent shipyard and Australia, as in the Landing Helicopter Dock project, or a full Australian build. A combination of options may be considered for the construction of the two vessels.[15]

2.12 The White Paper provided a broad picture of the capability Defence intended to acquire from the purchase of the two vessels. This statement was then translated into a more concrete proposal in the Defence Capability Plan (DCP) 2012. The DCP is a 'classified and costed 10-year detailed development plan for Australia's military capabilities (including workforce requirements)'. The document:

> …lists the rolling program of major capital investment projects that meet the capability objectives and priorities that fall from the Defence White Paper (or subsequent strategic updates) and the DPG [Defence Planning Guidance].[16]

2.13 Government approval for entry of projects into the DCP provides 'the foundation for subsequent capability work in Defence'.[17] Defence also publishes a public version of the DCP designed to:

> …provide industry with a synopsis of the projects including: confirmed scope; background; indicative schedule; Australian Industry opportunities; cost banding; and points of contact. The format of this Public DCP also introduces stakeholders to the concept of Program and Sub-Program management.[18]

2.14 The 2012 DCP included a costed and scheduled plan for the acquisition of the two replenishment ships, which entered the plan as project SEA 1654, Phase 3.

Project—SEA 1654, Phase 3

2.15 SEA 1654 is the project that is to replace the two existing RAN afloat support capability. As noted earlier, this capability is necessary to sustain deployed maritime

---

14 Department of Defence, *Defence White Paper 2013*, paragraph 8.59, http://www.defence.gov.au/whitepaper2013/docs/WP_2013_web.pdf (accessed 8 August 2014).

15 Department of Defence, *Defence White Paper 2013*, paragraph 12.56.

16 Department of Defence, *Defence Capability Development Handbook 2014*, paragraph 2.2.4, http://www.defence.gov.au/publications/docs/Defence%20Capability%20Development%20Handbook%20(DCDH)%202014%20-%20internet%20copy.pdf (accessed 8 August 2014).

17 Department of Defence, *Defence Capability Development Handbook 2014*, paragraph 2.2.7.

18 Department of Defence, Defence Capability Plan, public version 2012, p. 1, http://www.defence.gov.au/publications/CapabilityPlan2012.pdf (accessed 8 August 2014).

forces at greater distances and for longer periods away from the Australian operating base. There have been a number of phases to this project, which include much earlier ones that have been completed or cancelled:

- Phase 1 Project Definition Study (completed)
- Phase 2A HMAS *Westralia* interim replacement by HMAS *Sirius* (completed)
- Phase 2B replacement of the interim capability originally envisaged under Phase 2A, with a more permanent vessel (cancelled).

2.16 Phase 3 of this project is to replace both HMAS *Success* and HMAS *Sirius* with a single class of Combat Support Ship to sustain deployed maritime forces. According to the scope of the project:

> The ships will be proven-design, double-hulled naval vessels that are compliant with the International Maritime Organisation (IMO) International Convention for the Prevention of Pollution from Ships (MARPOL).[19]

2.17 The 2012 Defence Capability Plan set out the following schedule for Phase 3:

- First Pass Approval FY 2012–13 to FY 2013–14
- Year-of-Decision FY 2014–15 to FY 2017–18
- Initial Materiel Release FY 2018–19 to FY 2020–21
- Initial Operational Capability FY 2018–19 to FY 2022–23[20]

Australian Industry Capability Considerations

2.18 An Australian Industry Capability Plan is required for each project procurement where the estimated value of the procurement is equal to or greater than $20 million or where the procurement will impact on a Priority Industry Capability (PIC). The Capability Plan indicated that it was likely that Phase 3 would require Australian industry capability, priority industry capability, strategic industry capability and global supply chain.[21]

Acquisition

2.19 The Capability Plan stated that Phase 3 industry requirements would be guided 'by the information gained through the Risk Reduction Studies' and that 'market solicitation would commence following first pass to obtain estimated cost, capability and schedule information'. It noted further that as the project progresses, the market solicitation 'may include the release of a request for proposal or request for

---

19 Department of Defence, *Defence Capability Plan 2012*, public version, p. 244, http://www.defence.gov.au/publications/CapabilityPlan2012.pdf (accessed 8 August 2014).

20 Department of Defence, *Defence Capability Plan 2012*, public version, p. 244.

21 Department of Defence, *Defence Capability Plan 2012*, public version, p. 244.

tender 'to obtain more robust information'.[22] The DCP records the acquisition cost at between $1b and $2b.

2.20 According to the Defence Capability Development Handbook, each capability system option proposed for first pass consideration 'must be accompanied by a description of how the capability is to be acquired and its support implemented'.[23] At this stage, the government allocates funds from the Capital Investment Program to enable the options that it has endorsed to be investigated in detail with an emphasis on cost and risk analysis.[24]

2.21 On 6 June 2014, the government announced that it had given first pass approval for Defence to conduct a limited competitive tender process for the replacement of the two replenishment ships.[25] The restricted tender competition would be between Navantia of Spain and Daewoo Shipbuilding and Marine Engineering of South Korea. First pass approval means that the government now has the opportunity to 'narrow the alternatives being examined by Defence to meet an agreed capability gap'.[26]

2.22 At the time, the Minister noted the size of these ships and suggested that currently Australia was not in a position to manufacture vessels 20,000 tonnes and above and hence the ships would be produced either in Spain or in South Korea.[27]

2.23 In the following chapters, the committee considers the arguments for and against the government's decision to undertake a limited tender and to confine it to two overseas shipyards.

---

22 Department of Defence, *Defence Capability Plan 2012*, public version, p. 244.

23 Department of Defence, *Defence Capability Development Handbook 2014*, paragraph 3.4.43, http://www.defence.gov.au/publications/docs/Defence%20Capability%20Development%20Handbook%20(DCDH)%202014%20-%20internet%20copy.pdf (accessed 8 August 2014).

24 Department of Defence, *Defence Capability Development Handbook 2014*, p. 121.

25 'Minister for Defence—Boosting Australia's maritime capabilities', 6 June 2014, http://www.minister.defence.gov.au/2014/06/06/minister-for-defence-boosting-australias-maritime-capabilities/ (accessed 6 August 2014).

26 Department of Defence, *Defence Capability Development Handbook 2014*, p. 121.

27 'Minister for Defence—Transcript—Naval shipbuilding announcement', CEA Technologies, Canberra, 6 June 2014, http://www.minister.defence.gov.au/2014/06/06/minister-for-defence-transcript-naval-shipbuilding-announcement/ (accessed 4 August 2014).

Chapter 3

Role of central agencies

3.1 Although not stakeholders in the normal sense, the central agencies—Department of the Prime Minister and Cabinet (PM&C), the Department of Finance (Finance) and the Treasury—have an important part in the consideration and approval of major capability proposals.[1] In this chapter, the committee considers the role of the central agencies in the government's decision to exclude Australian defence industry from tendering for the AORs replacement project.

First Pass Consideration

3.2 Before a project, such as SEA 1654, Phase 3, can be submitted to government for first pass approval, it must undergo a comprehensive process of refinement and reach a stage 'where a new capability can be acquired.' This phase includes the creation of 'Capability Definition Documents' to support progression through Defence committees to government approval.[2]

3.3 The Capability Systems Division in Defence leads the development of the capability proposals and the supporting documents that form the basis of the ministerial or cabinet submission that is presented to government.[3] The relevant project manager in the Capability Systems Division manages a particular project and coordinates the development of the suite of project documents that underpin the project. The project manager 'uses this information to produce a complete and well-argued capability proposal and all supporting evidence'.[4] The Defence Capability Development Handbook stipulates that the project manager should only engage central agencies in consultation with the Capability Investment and Resources Division in Defence.[5]

3.4 This Division has the lead role for engagement with the central agencies. It provides independent analysis and review of capability proposals and related costs, including the overall balance of investment in current and future capability, major investment proposals and priorities. The Division is responsible for: 'ensuring that the DCP is appropriately programmed, independently reviewing capital and operating

---

1 Department of Defence, *Defence Capability Development Handbook 2014*, paragraph 3.2.15n, http://www.defence.gov.au/publications/docs/Defence%20Capability%20Development%20Handbook%20(DCDH)%202014%20-%20internet%20copy.pdf (accessed 8 August 2014).

2 Department of Defence, *Defence Capability Development Handbook 2014*, paragraphs 1.5.8–1.5.13.

3 Department of Defence, *Defence Capability Development Handbook 2014*, paragraph 1.6.7.

4 Department of Defence, *Defence Capability Development Handbook 2014*, paragraph 1.6.8.

5 Department of Defence, *Defence Capability Development Handbook 2014*, paragraph 3.2.15n.

costs for all projects going to the Defence committees, and managing Net Personnel and Operating Costs (NPOC) estimates for all DCP projects…'[6] The First Assistant Secretary Capability Investment and Resources heads the division.[7]

3.5 Key responsible authorities within Defence review the draft ministerial or cabinet submission before it is submitted to the Secretary of the Department and the Chief of the Defence Force for clearance to go to government. The authorities do so in order 'to ensure that the detail is correct and aligns with departmental policies and allocations'. The role of the CEO of the Defence Materiel Organisation (DMO) is to concur with the summary acquisition strategy and cost, schedule and risk estimates. The CEO also 'provides independent written advice on the cost, schedule and commercial aspects as an attachment to the submission'.[8] Mr Warren King, CEO DMO, explained that his organisation can spend a limited amount of money in the lead-up to first pass doing market research—'understanding what is available: understanding the market'. He explained further that Defence rarely undertakes industry solicitation of DCP projects prior to first pass approval and the assessment of capability options and other options is conducted through open market research.[9] He noted, however, that:

> …genuine approaches to market—approaches that may lead to the award of a contract or future work—cannot be pursued until we have first-pass approval.[10]

3.6 With regard to the acquisition of the new supply ships, Defence informed the committee that it had developed estimated cost, capability and schedule information for the project based on its open market research, unsolicited proposals and other recent approaches to market. These approaches included the exchange of information from similar Canadian and New Zealand projects, and reports into Australian shipbuilding available capacity.[11] Defence explained that notwithstanding the limitations of its research:

> …the level of information available on the various ship options in the marketplace was widely available through open source information and sufficiently detailed to enable Defence to obtain information on available options to meet the capability requirement.[12]

---

6 Department of Defence, *Defence Capability Development Handbook 2014*, paragraph 1.6.9, http://www.defence.gov.au/publications/docs/Defence%20Capability%20Development%20Handbook%20(DCDH)%202014%20-%20internet%20copy.pdf (accessed 8 August 2014).

7 Department of Defence, *Defence Capability Development Handbook 2014*, paragraph 1.6.10.

8 Department of Defence, *Defence Capability Development Handbook 2014*, paragraph 3.6.2.

9 Department of Defence, answer to question on notice No. 3.

10 *Committee Hansard*, 21 July 2014, p. 18.

11 Department of Defence, answer to question on notice No. 22.

12 Department of Defence, answer to question on notice No. 21.

3.7 After the government's first pass approval, the DMO becomes progressively more involved in the procurement process and is responsible for the acquisition strategy.

3.8 The central agencies provide an additional level of scrutiny and advice on capability development proposals from a whole-of-government perspective. The Department of Finance informed the committee that it has:

> …developed specific expertise in providing advice to government on defence capability matters. In addition to the Department's role in advising on whole of government procurement matters, and in advising the Finance Minister on the cost and quality of new policy proposals put forward by agencies, Finance has developed a specialised defence capability assessment role.
>
> Expertise at the Senior Executive Service Band 1 level is dedicated to this role with support provided by the Defence, Capability and Intelligence Branch. The work undertaken by Finance in this regard includes advising the Finance Minister on: priority cost and risk issues; cost contingency, cost models and supporting documentation; and other policy matters raised in Submissions.[13]

3.9 At first pass, Finance is required to endorse the detailed acquisition and operating costs and financial risk assessment. The Defence Capability Development Handbook states further that this requirement is especially important in 'the case for decisions on DCP capabilities or decisions having important political, workforce and/or financial implications for Government'.[14]

Commonwealth Procurement Rules (CPRs)

3.10 Mr John Sheridan, Business Procurement and Asset Management Group, Department of Finance, informed the committee that a procurement needs to be considered in the context of the Commonwealth Procurement Rules (CPRs).[15] Commonwealth officials must comply with the rules.

3.11 Paragraph 10.3 of the CPRs stipulates that a relevant entity must only conduct a procurement at or above the relevant procurement threshold through limited tender in certain strict circumstances. The procurement threshold for non-corporate

---

13 *Submission 14*, p. 2.

14 Department of Defence, *Defence Capability Development Handbook 2014*, paragraph 3.6.6, http://www.defence.gov.au/publications/docs/Defence%20Capability%20Development%20Handbook%20(DCDH)%202014%20-%20internet%20copy.pdf (accessed 8 August 2014).

15 *Committee Hansard*, 21 July 2014, p. 3.

Commonwealth entities is $80,000, other than for procurements of construction services (for procurement of construction services the threshold is $7.5 million).[16]

3.12 Mr King, DMO, informed the committee that he understood that the CPRs required DMO not to discriminate for a procurement over $80,000: that DMO would have to go to the open market if the acquisition were over $80,000.[17] Indeed, the Defence Procurement Policy Manual stipulates that, in accordance with the CPRs, it is mandatory for an open tendering process to be used for 'all procurements at or above the relevant procurement threshold (other than Exempt Procurements)'. This requirement applies 'unless the conditions for limited tendering or prequalified tendering can be satisfied'.[18]

3.13 With the acquisition cost for the supply vessels expected to exceed $1 billion, the Commonwealth procurement rules would generally require that the tender for the supply ships be open unless an exemption applies.

Exemptions

3.14 Defence defines a limited tender as a procurement process in which Defence has invited either a single potential supplier or a number of potential suppliers to submit a response without using an open procurement process.[19] Defence's procurement policy recognises that in some circumstances it may be appropriate to limit the number of potential suppliers to whom a Request for Tender (RFT) is released. Defence's Procurement Policy Manual states:

> Limited tendering should only be used where there is a sound basis for identifying interested and eligible potential suppliers. When using a limited tendering approach the process must be non-discriminatory and ensure that a sufficient number of potential suppliers are invited to participate so as to ensure a sound value for money outcome.[20]

3.15 The CPRs allow for an exemption from having to adhere to the rules. Paragraph 2.6 of the CPRs provides an overarching exemption which removes the need to apply the CPRs where, for clearly defined reasons, an Accountability Authority has determined it was necessary. Paragraph 2.6 states that:

> Nothing in any part of these CPRs prevents an *official* from applying measures determined by their *Accountable Authority* to be necessary for the

---

16 *Commonwealth Procurement Rules*, July 2014, see paragraph 9.7 for procurement thresholds, http://www.finance.gov.au/sites/default/files/2014%20Commonwealth%20Procurement%20Rules.pdf (accessed 8 August 2014).

17 *Committee Hansard*, 21 July 2014, p. 12.

18 Department of Defence, *Defence Procurement Policy Manual*, p. 3.1–1, http://www.defence.gov.au/dmo/multimedia/dppm-9-5247.pdf (accessed 8 August 2014).

19 Department of Defence, *Defence Procurement Policy Manual*, glossary–13 and also p. 3.1–5, http://www.defence.gov.au/dmo/multimedia/dppm-9-5247.pdf (accessed 8 August 2014).

20 Department of Defence, *Defence Procurement Policy Manual*, p. 3.1–5.

> maintenance or restoration of international peace and security, to protect human health, for the protection of essential security interests, or to protect national treasures of artistic, historic or archaeological value.[21]

3.16 Finance explained that, in practice, this exemption 'allows an entity to undertake an alternative form of procurement, such as a limited tender, should they choose'.[22] Under paragraph 2.6, the Secretary and CEO DMO have determined that the procurement of certain goods be categorised as Defence Exempt Procurements, which includes ships and marine equipment.[23]

3.17 Speaking generally about the application of this exemption, Mr King explained that a limited tender did not mean limited to Australia; it meant that limitations are placed on the tender. He elaborated on this point:

> It is an exemption simply to go to a limited tender. That does not mean a limited tender to overseas; it just means a limited tender. Sometimes I have used that exemption to be a limited tender for Australia. For example, …although it is not yet at a tender stage, there will be tendered work—the work to be done to see if we can build a future frigate in Australia will rely on that exemption. I will have to exercise that exemption to say, if the government so chooses, that the only place we are going to build the future frigate is in Australia. Otherwise, I would have to go to the world market and see who wanted to supply us with a frigate.[24]

3.18 Mr King explained that, if DMO in any way undertook a limited tender, the exemption had to apply. According to Mr King, whenever he limits a 'tender in any way, shape or form, whether as to country of supply or type of supply', he has to use the exemption that was used for the two supply ships.[25] He explained that the purpose of the exemption was to make sure that the DMO could 'provide essential defence equipment'.[26]

3.19 Mr Sheridan informed the committee that the exemption would also allow for a rapid acquisition.[27]

---

21 Department of Finance, *Commonwealth Procurement Rules*, July 2014 (emphasis in original).

22 *Submission 14*, p. 2.

23 See Finance and Public Administration References Committee, *Commonwealth procurement procedures*, July 2014, Appendix 3.

24 *Committee Hansard*, 21 July 2014, p. 13.

25 *Committee Hansard*, 21 July 2014, p. 15.

26 *Committee Hansard*, 21 July 2014, p. 18.

27 *Committee Hansard*, 21 July 2014, p. 5.

Central agencies and DMO's role in decision for restricted tender

3.20 As noted earlier, the Minister announced that the government had given first pass approval for Defence to conduct a limited competitive tender process between Navantia of Spain and Daewoo Shipbuilding and Marine Engineering of South Korea for the construction of two replenishment vessels based on existing designs. Mr King explained his role in advising government on the tender process for the supply ships:

> I am the executive within DMO and within the department who formed the opinion that the exemption could apply and should apply to these ships.[28]

3.21 Mr Sheridan understood that this procurement would be conducted under the exemption provided in paragraph 2.6 of the Commonwealth Procurement Rules that permit exemptions for national security measures. According to Mr Sheridan, the procurement rules reflect the US free trade agreement that allows carve outs for particular purposes including matters related to security.

3.22 In this regard, Chapter 15 of the Australia–United States Free Trade Agreement sets out the specific rules, procedures and transparency standards to be applied in the conduct of government procurement, consistent with non-discrimination. Both the US and Australia, however, have exempted procurement of items that are critical to their national security such as military equipment, systems and essential supplies. Australia has also reserved the right to maintain the Australian Industry Involvement Program for defence procurement.[29] Mr Sheridan's understanding of the application of this exemption is consistent with the Defence Procurement Policy Manual which states that:

> If a procurement is subject to Division 2 of the CPRs due to its estimated procurement value, it may…still be exempt from the operation of this Division for 'essential security' reasons if it is a Defence Exempt Procurement in accordance with paragraphs 28–30 of this chapter.[30]

3.23 One of the two methods by which a procurement may be deemed an exempt procurement is where a Defence exemption may apply a measure under paragraph 2.6 of the CPRs as pre-determined by the Chief Executive. As noted above, paragraph 2.6 of the CPRs permits the Chief Executive of an agency to determine that a measure is necessary for, among other things, the protection of 'essential security' interests. Paragraph 27 of the Defence Procurement Policy Manual lists the procurement of goods and services that the Secretary and CEO DMO have determined to be categorised as Defence Exempt Procurements under the measure. The list contains 25 categories of goods and services and include the following US Federal Supply

---

28 *Committee Hansard*, 21 July 2014, p. 13.

29 See Australia–United States Free Trade Agreement—Guide to the Agreement, Chapter 15, Government Procurement, http://www.dfat.gov.au/fta/ausfta/guide/15.html (accessed 8 August 2014).

30 Department of Defence, *Defence Procurement Policy Manual*, p. 2.1–4, http://www.defence.gov.au/dmo/multimedia/dppm-9-5247.pdf (accessed 8 August 2014).

Codes (FSC) FSC 19—Ships, Small Craft, Pontoons and Floating Docks; and FSC 20—Ships and Marine Equipment.[31] In effect, under the carve-out provision in the CPRs, the acquisition of the replenishment vessels was eligible for exemption from the Commonwealth procurement requirement for an open tender.[32]

3.24 Mr Sheridan understood that the Secretary of Defence and the CEO of DMO made the decision to apply through the defence procurement mechanism to use the exemption provided under paragraph 2.6 in respect of procuring the supply ships. Further, that Budget Group in the Department of Finance, whose responsibilities involve liaison with Commonwealth agencies around spending proposals and budget issues, made enquiries as to whether this exemption would be applicable in these particular circumstances.[33] Mr Sheridan informed the committee that on 1 April 2014, Finance officers in the Budget Group asked his division whether paragraph 2.6 of the CPRs applied in these circumstances.[34] According to Finance, the Budget Group initiated contact with the Business Procurement and Asset Management Group to establish the conditions under which the proposed procurement may be exempt under paragraph 2.6. This request emanated from Budget Group and not the Minister for Finance.[35] Mr Sheridan explained that his response was simply a matter of fact—the exemption was 'applicable to the procurement of ships':[36]

> …the procurement of ships is an exemption. That is really a matter of fact. It does not need much context for me to interpret that. Is it a ship? Yes. That is it.[37]

3.25 Mr John Edge, Finance, explained that Defence was 'responsible for forming the view that they did around the application of that exemption'.[38] He stated further:

---

31 Department of Defence, *Defence Procurement Policy Manual*, paragraph 27, p. 1.2–5, According to Mr Sheridan paragraph 27 lists the things which are carved out under article 22.2 of the Australia–United States Free Trade Agreement, which refers to essential security. *Committee Hansard*, 21 July 2014, p. 2. There is a list of some 25 categories of the procurement of goods which utilise that carve-out. Article 22.2—Essential Security—stipulates that nothing in the Agreement shall be construed:

- to require a Party to furnish or allow access to any information the disclosure of which it determines to be contrary to its essential security interests; or
- to preclude a Party from applying measures that it considers necessary for the fulfilment of its obligations with respect to the maintenance or restoration of international peace or security, or the protection of its own essential security interests.

http://www.dfat.gov.au/fta/ausfta/final-text/chapter_22.html (accessed 8 August 2014).

32 Mr John Sheridan, *Committee Hansard*, 21 July 2014, p. 2.

33 Mr John Sheridan and Mr John Edge, *Committee Hansard*, 21 July 2014, pp. 7 and 10.

34 *Committee Hansard*, 21 July 2014, p. 2.

35 Department of Finance, answer to question on notice No. 1, p. 4 in *Submission 14*.

36 *Committee Hansard*, 21 July 2014, p. 7.

37 *Committee Hansard*, 21 July 2014, p. 9.

38 *Committee Hansard*, 21 July 2014, p. 5.

> Ultimately it is Defence's assessment and Defence's decision to use an exemption that may exist in the Commonwealth Procurement Rules for a particular project. So, while we will obviously talk internally to our colleagues in budget group and we will, on occasions, talk to agencies about the application of the Commonwealth Procurement Rules, as Mr Sheridan said, ultimately it is a decision for the agency involved as to whether to apply those rules.[39]

3.26 Mr King stated that, under the rules, clearly he was the responsible officer for forming the opinion that it should be a limited tender, which became part of the departmental submission and was ultimately reflected in the government's decision. He explained:

> The department formulates advice for the ministers, and the ministers then take it to the government, but our advice to the minister was that this should be pursued by a limited tender.[40]

3.27 According to Mr King, the central agencies review all cabinet submissions, but he could not say how it was handled inside Finance. In his view, the Department of Finance or others could have rejected the advice, but 'I am saying I take accountability for forming that opinion'.[41] The Department of Finance informed the committee that it provided advice on the submission dealing with the acquisition of the new supply ships and to the Minister for Finance 'in the usual way'.[42]

Government approval—first pass

3.28 When the government considers submissions relating to major acquisitions, it typically approves 'a solution-class option (comprising a number of options) for further investigation'.[43] According to the Defence Capability Development Handbook, the level at which first pass approval is 'required with Government depends on the estimated cost of the proposal and on whether there are any political or diplomatic sensitivities associated with the proposal'. It states:

> The level of Government consideration required is one Minister (ie the Minister for Defence) for projects up to $20 million, two Ministers (ie Minister for Defence plus Minister for Finance) for projects between $20 million and $100 million and the NSC [National Security Committee of Cabinet] for projects over $100 million. The Minister for Defence will often

---

39 *Committee Hansard*, 21 July 2014, p. 6.

40 *Committee Hansard*, 21 July 2014, p. 13.

41 *Committee Hansard*, 21 July 2014, p. 13.

42 *Submission 14*, p. 2.

43 Department of Defence, *Defence Capability Development Handbook 2014*, paragraph 3.6.8, http://www.defence.gov.au/publications/docs/Defence%20Capability%20Development%20Handbook%20(DCDH)%202014%20-%20internet%20copy.pdf (accessed 8 August 2014).

> determine the appropriate mechanism for approval depending on a project's sensitivity, previous considerations, etc.[44]

3.29 The submission on the acquisition of the new replenishment vessels, with its estimated costs well over $100 million, would necessarily have gone before the National Security Committee for final decision.

3.30 According to the Department of Finance, the NSC gave first pass consideration of the proposed new replenishment ships on 4 April 2014, which was followed by the Minister for Defence's announcement of the government's decision on 6 June to go to a limited tender.[45]

Conclusion

3.31 The Defence Capability Development Handbook sets out clearly the procedures and documents that must be prepared in readiness to submit an acquisition proposal to cabinet. The CEO of DMO, Mr King, made clear that he was responsible for advising the government on the preferred tender process, which in this case was to proceed with a restricted tender between Navantia of Spain and Daewoo Shipbuilding and Marine Engineering of South Korea. He formed the view that the government could do so consistent with the exemption provided in the Commonwealth Procurement Rules. The relevant section in the Department of Finance confirmed that the rules allowed for such an exemption.

3.32 There is no evidence to suggest that the proposed limited tender for the two supply ships contravenes the Commonwealth Procurement Rules. Furthermore, although Mr King's advice to the Minister was to opt for a restricted tender, the decision was ultimately one for government.

---

44 Department of Defence, *Defence Capability Development Handbook 2014*, paragraph 3.6.8.

45 Department of Finance, *Submission 14*, p. 2.

Chapter 4

Capacity

4.1 The shipbuilding industry is capital intensive and requires substantial and expensive infrastructure. When the Minister for Defence announced the government's intention to conduct a limited tender for the supply ships, he rejected the notion that the decision reflected the government's lack of confidence in Australian industry. In response to a question about the restricted tender for the replacement of the two replenishment ships, the Minister stated that a 20,000 tonne or a 26,000 tonne replenishment ship would be 'far too large for us to build here in Australia'.[1] He noted the large size of the ships and suggested that:

> …there is very limited capacity for us to build a 20,000 tonne replenishment ship or a 26,000 tonne replenishment ship.[2]

4.2 In his view, both of the potential competitors for the tender—Navantia and Daewoo—build a very successful replenishment ship.[3] In this chapter, the committee considers the capacity of Australian shipyards to build in full or partially the proposed supply ships.

Australian prime contractors and shipyards

4.3 The five largest defence shipbuilding prime contractors currently operating in Australia are:

BAE systems—prime contractor for the two 27,000 tonne Canberra Class Landing Helicopter Dock (LHD) vessels: it is undertaking the construction of the superstructure and consolidation of the hulls (the hulls, including the majority of the fit-out were built by Navantia in Spain).[4] The first ship has been delivered and is currently undergoing contractor sea trials: the second ship is expected to be delivered to the Navy in mid 2015.[5]

---

1 'Minister for Defence—Transcript—Naval shipbuilding announcement', CEA Technologies, Canberra', 6 June 2014, p. 4, http://www.minister.defence.gov.au/2014/06/06/minister-for-defence-transcript-naval-shipbuilding-announcement/ (accessed 6 August 2014).

2 'Minister for Defence—Transcript—Naval shipbuilding announcement, CAE Technologies, Canberra', 6 June 2014, p. 4.

3 'Minister for Defence—Transcript—Naval shipbuilding announcement, CAE Technologies, Canberra', 6 June 2014, p. 4.

4 Australian National Audit Office, Report No.15 2012–13, Assurance Report, *2011–12 Major Projects Report*, pp. 260–261, http://www.defence.gov.au/dmo/Multimedia/201213%20Audit%20Report%20No%2015_DMO.pdf (accessed 8 August 2014).

5 Department of Defence, answer to question on notice No. 10.

- ***Thales Australia***—has operated the Navy's major east coast refit, repair and maintenance facilities at Garden Island for over 20 years, where it provides dock operations and ship repair, maintenance and support for eleven major RAN ships presently home ported in Sydney.[6]
- ***Forgacs***—has shipyards at Tomago and Cairncross and specialises in modular construction for the naval sector. It is a major supplier of marine engineering to Australian and overseas navies.
- ***Austal***, a global defence prime contractor, has designed and built multi-mission combatants, including the Littoral Combat Ship (LCS) for the United States Navy and military high speed vessels for transport and humanitarian relief, such as the Joint High Speed Vessel (JHSV) for the United States Navy and High Speed Support Vessel (HSSV) for the Royal Navy of Oman. Austal also 'designs, constructs, integrates and maintains an extensive range of patrol and auxiliary vessels for government agencies globally'. They include the Cape Class Patrol Boat Program for Australian Customs and Border Protection. Defence vessels are designed and constructed in Mobile, Alabama and in Henderson, Western Australia.[7] Austal built the RAN's 14 Armidale Class Patrol boats at its shipyard in Western Australia.[8]
- ***ASC***—in 1987, the newly formed Australian Submarine Corporation (now ASC Pty Ltd.) began designing and building the Collins Class submarine (The submarines' design was based on the Type 471 design from Swedish shipbuilder Kockums.) ASC now maintains the submarine fleet with the majority of maintenance work undertaken at ASC North in Osborne, South Australia, by way of full cycle dockings (major refits). Other shorter term submarine maintenance activities are carried out at ASC West in Henderson, Western Australia, where the submarines are based.

  In 2005, the government selected ASC AWD Pty Ltd as the shipbuilder for the AWD Program and determined that the ships should be built in Adelaide. Due to difficulties encountered with the engineering and construction of some of the first AWD hull blocks, block work was reallocated between BAE, Forgacs and Navantia.[9]

---

6 Thales Australia website, 'Thales to continue operating Sydney's Garden Island', 21 July 2014, https://www.thalesgroup.com/en/australia/press-release/thales-continue-operating-sydneys-garden-island (accessed 6 August 2014).

7 Austal website, Overview, http://www.austal.com/en/about-austal/Overview.aspx (accessed 6 August 2014).

8 'Armidale Class Patrol Boat, Australia', www.naval-technology.com/projects/armidaleclass/ and see Department of Defence, *Future Submarine Industry Skills Plan*, A Plan for the Naval Shipbuilding Industry, p. 85, http://www.defence.gov.au/dmo/Multimedia/FSISPWEB-9-4506.pdf (accessed 6 August 2014).

9 ASC website, http://www.asc.com.au/ (accessed 6 August 2014).

4.4 There are six major shipbuilding sites of relevance to the RAN:

- ***Henderson in Western Australia***—the Maritime Precinct is approximately 35 hectares in area extending from the Common User Facility in the South to the Recreation Boating Facility in the North. The Shipbuilding Precinct was developed to accommodate a growing shipbuilding industry, and is currently home to five primary shipbuilders and many other smaller companies producing vessels in the 15 to 130 metre range.[10]
- ***Osborne in South Australia***—located approximately 25 kilometres north-west of Adelaide, ASC South is adjacent to ASC's submarine maintenance facilities.[11] The shipyard is a part of Techport Australia, Australia's largest naval shipbuilding hub incorporating 'a critical mass of world class warship design and construction skills'. According to ASC, the new shipbuilding facility at Osborne is 'a $120 million investment' in the building of Australia's AWDs and future naval capability.[12]
- ***BAE Systems Williamstown in Victoria***—located in the northern part of Port Philip Bay, adjacent to Port of Melbourne commercial operations. The shipyard has been the 'birthplace of many vessels, including the Royal Australian Navy's ANZAC Class Ships and the Royal New Zealand Navy's Offshore Patrol Vessels'.[13]
- ***Garden Island in New South Wales***—located on the southern foreshore of Sydney Harbour. The shipyard is one of two primary Navy repair and refit locations in Australia (the other being south of Perth) and is of 'strategic significance in both berthing and supporting the Navy Fleet and associated regional defence activities'. Its primary role is to support and maintain the major RAN ships based in Sydney, plus visiting RAN and foreign warships. It provides a vital range of fleet base facilities that are fundamental to mounting and supporting maritime operational capability. Thales Australia

10 Australian Marine Complex, Western Australia, http://www.australianmarinecomplex.com.au/Facilities-&-Precincts/Maritime/ (accessed 6 August 2014).

11 Defence SA, 'South Australia the Defence State: Techport Australia', http://www.defencesa.com/precincts/techport-austra (accessed 6 August 2014).

12 ASC website, http://www.asc.com.au/en/About-Us/Facilities/South-Australia/ (accessed 6 August 2014).

13 BAE Systems Australia website, 'Williamstown Shipyard', http://www.baesystems.com/page/search?sparam=williamstown&_afrLoop=65813366367000&_afrWindowMode=0&_afrWindowId=64p4ape2l_1#%40%3Fsparam%3Dwilliamstown%26_afrWindowId%3D64p4ape2l_1%26_afrLoop%3D65813366367000%26_afrWindowMode%3D0%26_adf.ctrl-state%3D64p4ape2l_85 (accessed 6 August 2014).

manages and operates a graving dock (dry dock), a floating dock and a range of ship engineering and maintenance facilities at Garden Island.[14]

- ***Forgacs, site at Tomago in New South Wales***—located 14 kilometres from the Port of Newcastle, NSW on the Hunter River. The 16 hectare site has 535 metres of river frontage with two ship basins. Tomago is Forgacs' key site for construction of AWD modules. Projects at the shipyard include a range of commercial vessels, including an ice breaker, cargo ships, tugs, ferries and luxury cruisers. Naval vessel, HMAS *Tobruk*, was built at Tomago along with modules for the ANZAC and Collins Class Submarine programs.[15]
- ***Forgacs, additional site at Cairncross in Queensland***—a 15 hectare facility with one of the largest graving docks in Australasia, a 267 x 35 metre graving dock.[16] *Lloyds List Australia* reported on 10 July 2014 that there would be no further dry-dockings, ship repair or engineering works to be undertaken on the site.[17]

Capacity of Australian shipyards

4.5 In March 2013, Defence published its *Future Submarine Industry Skills Plan*, which was the result of a study on the current state of naval shipbuilding in Australia, undertaken by an expert industry panel chaired by Mr David Mortimer. The panel assessed the capacity of Australia's major shipyard to deliver the ships in the DCP. In respect of the capacity to build the supply ships, the Industry Skills Plan provided information drawn from an analysis prepared in late 2012 by First Marine International (FMI), a consultancy group from the United Kingdom that provides specialist services to the marine industry.

4.6 The FMI found that the four major Australian shipyards had the capacity to build the ships outlined in the White Paper and DCP, 'with some investment required to develop launch facilities for the largest supply ships'.[18] For example, it noted that the ASC's site at Osborne had the main construction, launch and wet berth facilities capable of accommodating all vessels in the DCP except the largest

---

14 Department of Defence, *Landing Helicopter Dock Ship Sustainment Facilities*, Garden Island Defence Precinct and Randwick Barracks, Sydney, New South Wales, Statement of Evidence to the Parliamentary Standing Committee on Public Works, March 2013, p. 7. See also 'The Garden Island complex', http://www.gardenisland.info/1-00-000.html (accessed 8 August 2014).

15 Forgacs website, http://www.forgacs.com.au/locations/tomago/ (accessed 6 August 2014).

16 Forgacs website, http://www.forgacs.com.au/locations/brisbane/ (accessed 6 August 2014).

17 *Lloyd's List Australia*, 'Local: Report, reaction & analysis—Forgacs closes Cairncross shipyard', http://www.lloydslistdcn.com.au/archive/2014/07-july/10/report-reaction-analysis-forgacs-closes-cairncross-shipyard (accessed 8 August 2014).

18 See Department of Defence, *Future Submarine Industry Skills Plan*, A Plan for the Naval Shipbuilding Industry, p. 82, http://www.defence.gov.au/dmo/Multimedia/FSISPWEB-9-4506.pdf (accessed 7 August 2014).

supply ships. It noted, however, that the shiplift had been designed with expansion in mind, and could be lengthened to carry the larger supply and LHD ships.[19] Defence provided additional information on the shipyard's capacity to build the supply ship taken from the 2010 review by FMI, which assessed the ASC single shipyard as:

> Current capacity is zero as a suitable build position is not available. Potential capacity is zero as a suitable build position cannot be developed without significant capital investment.[20]

4.7 Defence informed the committee that, at this stage, it has not undertaken an in-depth analysis of the costs involved in infrastructure upgrades.[21]

4.8 In respect of BAE's site at Williamstown, FMI found that the shipyard's main construction point was an inclined berth, which, in its view, was not optimal in the context of modern ship construction. It stated:

> The slipway could be modified to accommodate the wider beams (18 metres) of the large vessels. If this were done, with the exception of the submarine and the supply ship, all vessels in the Defence Capability Plan could be constructed on the inclined ways. However, there would be a productivity penalty when compared to a more modern approach to construction where hulls are consolidated and systems integrated on a level surface before launch.[22]

4.9 The FMI also noted that with some investment in facilities, the Tomago shipyard could potentially be used for the integration of icebreakers, heavy landing craft and supply ships. There are no wet berths but a shipping berth provides block load out capability for all vessel types. Finally, the FMI commented on Cairncross and observed that it has potential for construction of a number of ship types including the larger supply ship. Overall, FMI determined that the collective shipyard facilities assessed in its report have:

> …the capability to build each of the vessel types in the Defence Capability Plan. This is subject to a suitable launch position being developed for the large supply ship, for example through upgrading facilities at Adelaide, Melbourne or Newcastle, and assumes that some specialist equipment is purchased and that some aspects of production are subcontracted.[23]

---

19 See Department of Defence, *Future Submarine Industry Skills Plan*, A Plan for the Naval Shipbuilding Industry, p. 84.

20 Department of Defence, answer to question on notice No. 11.

21 Department of Defence, answer to question on notice No. 11.

22 See Department of Defence, *Future Submarine Industry Skills Plan*, A Plan for the Naval Shipbuilding Industry, p. 86, http://www.defence.gov.au/dmo/Multimedia/FSISPWEB-9-4506.pdf (accessed 7 August 2014).

23 See Department of Defence, *Future Submarine Industry Skills Plan*, A Plan for the Naval Shipbuilding Industry, p. 89.

4.10 Mr King informed the committee that Australia had facilities that could handle up to about an 18-metre to 20-metre module and its accompanying weight. He suggested that some modules in the really efficient yards could manage up to 900 tonnes. He explained that to achieve a productive module-building and shipbuilding organisation, three things would be needed:

- the lift and a docking facility to take the big modules;
- halls big enough and with the significant span required to handle a wide module; and
- cranage to rotate the modules and then put them in place when they are finally brought together.[24]

4.11 Thus, while he recognised the impressive infrastructure at the Common User Facility, Techport precinct, and the facilities and surface combatant building at ASC, he stated:

> …it is not simply a matter of building a syncrolift large enough to be able to take the displacement. That is only a necessary precursor to be able to build and launch. The point…is that your total infrastructure environment, including all the shedding, paint and blast, cranage all has to be upgraded to take these much larger modules that would exist on the AOR.[25]

4.12 Mr King also thought that an upgrade to the facility at the Techport precinct would require 'a bit of dredging work as well and access is a bit difficult'.[26] He then noted that:

> We are currently obviously in the force structure review white paper process and these matters will also be reconsidered again then—strategic needs. On balance, certainly at the moment we have enough of that strategic capability relative to our needs, but the whole industrial capacity issue will be re-evaluated in the white paper and the outcomes from that, including the defence industry policy statement.[27]

4.13 He also noted that should a decision be made to go down the path of building the future frigates based on the AWD, you would not want to have one-off very large ships significantly diverting and diminishing the country's ability to become a world-leading surface combatant builder.[28]

> So I would not like to see investment in one or two ships or investment in infrastructure, which we will never use again in the foreseeable future—

24 *Committee Hansard*, 21 July 2014, p. 14.

25 *Committee Hansard*, 21 July 2014, p. 26.

26 *Committee Hansard*, 21 July 2014, p. 27.

27 *Committee Hansard*, 21 July 2014, p. 27.

28 *Committee Hansard*, 21 July 2014, p. 26.

> 30 years—compared to that attention and investment of any amount in trying to become a really good surface combatant builder.[29]

4.14 Mr King noted that you can always have the capability; it is whether it is a feasible course of action.[30]

4.15 A recent Australian Manufacturing Workers' Union (AMWU) paper noted the size of the proposed supply ships, which, in its view, limited the options for a construction site. It referred to an observation in the Future Submarine Industry Skills Plan that no shipyard in Australia had 'the immediate ability to launch ships of this size'.[31] Even so, it argued:

> …with some investment in facilities, the common user facilities in Adelaide and Perth are modern construction site options. The graving dock at Cairncross in Brisbane is also an option, but the shipyard would require more investment in infrastructure.[32]

4.16 Consistent with this argument, Mr Glenn Thompson, AMWU, did not accept the contention that Australia was not able to produce the ships. He also cited the common user facilities at Osborne South Australia and Henderson in Western Australia; BAE in Melbourne and Forgacs shipyards in Newcastle and Brisbane. In the union's view, some of these sites have the capacity to build and launch the proposed supply ships—in particular those in South Australia and Western Australia.[33] The AMWU acknowledged that some investment would be required to modify the facilities but that this requirement should not 'affect the project start'.[34]

4.17 In this regard, it should be noted that, in its submission to the committee, Forgacs stated that its Brisbane facility was 'the largest graving dock in Australia' and, with appropriate site development, would be capable of handling the full build and fit-out of the replacement supply ships.[35]

4.18 Likewise, Defence SA, suggested that with a small investment in the Techport Australia Common User Facility, it would be feasible to launch ships of this size. At the public hearing, Mr Andrew Fletcher, Defence SA, took the opportunity

---

29 *Committee Hansard*, 21 July 2014, p. 26.

30 *Committee Hansard*, 21 July 2014, p. 17.

31 See Department of Defence, *Future Submarine Industry Skills Plan*, A Plan for the Naval Shipbuilding Industry, pp. 82 and 103, http://www.defence.gov.au/dmo/Multimedia/FSISPWEB-9-4506.pdf (accessed 7 August 2014).

32 AMWU, *Australian Naval Shipbuilding, Design, Build & Maintain our Ships here,* AMWU Paper on Australian Naval Shipbuilding,14 November 2013, p. 9.

33 *Committee Hansard*, 21 July 2014, p. 34.

34 *Committee Hansard*, 21 July 2014, p. 34.

35 *Submission 1*.

to comment on the advice given to the Defence Minister that, 'without the expenditure of millions and possibly billions of dollars to existing facilities', Australia lacked the necessary infrastructure to handle the construction of the supply ship. He rejected the notion that the shipyard lacked the capacity to contribute to the construction of the supply ships, arguing that with minimal expenditure it could deliver on what was required to lift and support the supply ships if they were fabricated in Australia.[36] Mr Fletcher emphasized the fact that Techport and the Common User Facility at Techport had been designed for expansion and flexibility for the future. Indeed, he drew attention to the memorandum of understanding with the Commonwealth government whereby land around the Common User Facility has been reserved to cope with multiple projects with multiple prime contractors.[37] He explained:

> In relation to the actual ship lift capacity, there seems to be some confusion on the numbers. The reality is that the existing ship lift in terms of lifting ships such as supply ships is capable of lifting 13½ thousand tonnes. The new ships being considered have a nominated weight of 20,000 tonnes and 26,000 tonnes. But, the reality is, the docking weight of the two designs reduce significantly to 9,400 tonnes and 14,000 tonnes, respectively. Based on the information that is available to us at the moment, we believe that, with expenditure of just $20 million, we could provide a lift capacity at the Common User Facility at Techport to cope with the dry weight of these ships. With expenditure of a further $30 million—that is, a total of $50 million—we could also increase the length of the ship lift by another 15 metres, which would significantly increase the capacity and handling ability of the Common User Facility.[38]

4.19 Mr Fletcher also referred to the time it would take to complete the upgrade:

> With the design and implementation, if it was the $20 million upgrade it would be done within 12 to 18 months. If it was the $50 million upgrade it might run out to two years. But it would generally be the same sort of time if we were building these ships in Australia to build modules and assemble the ship. So, it would not be on the critical path for an Australian build.[39]

4.20 Defence SA also informed the committee that expansion works could be completed well before supply block fabrication was complete. It stated:

> From a national capacity perspective, block fabrication could be undertaken in the Melbourne and/or Newcastle shipyards, with the ships consolidated and launched at Techport Australia.[40]

---

36 *Committee Hansard*, 21 July 2014, p. 49.

37 *Committee Hansard*, 21 July 2014, p. 48.

38 *Committee Hansard*, 21 July 2014, p. 49.

39 *Committee Hansard*, 21 July 2014, p. 50.

40 *Submission 5*, p. [2].

4.21 BAE Systems similarly indicated that the Australian shipbuilding industry had the capacity, capability and experience to carry out in part or in full the replacement program for the two supply ships. It should also be noted that BAE Systems informed the committee that it had submitted an unsolicited proposal to government in September 2012 setting out a hybrid build program, with part of the ship built overseas and part of the ship built in Australia—a model similar to the LHD Program.[41] Mr Hamilton-Smith informed the committee that the LHD model involved 80 per cent of the work undertaken overseas and 20 per cent in Australia.[42] BAE explained that if the ships were constructed based on its proposed hybrid approach, there would be 'no major capital investment required': that the investments made for the LHD and AWD would be sufficient.[43]

4.22 The Government of Victoria vouched for BAE's ability to take on such a major ship build. The government had provided significant financial assistance to assist BAE modernise the Williamstown shipyard, its equipment and facilities so it could meet the requirements of today's naval shipbuilding and integration projects.[44] In the view of the Victorian government, BAE Systems at Williamstown had:

> …demonstrated its capability to succeed in the highly competitive shipbuilding market. Its recognised leadership in Australian shipbuilding rendered it an obvious candidate to carry out the replacement program for HMAS *Success* and HMAS *Sirius*.[45]

4.23 ASC also made a similar proposal involving a hybrid model.[46]

4.24 In this context of a hybrid build, the AMWU recognised that a 'build requires infrastructure to consolidate and launch. A hybrid build requires the capacity to fit these vessels out'.[47] Also, while the Australian Business Defence Industry recognised the current infrastructure limitations, it thought that the hybrid proposal could provide a solution. It stated:

> …the construction offshore of the Landing Helicopter Dock (LHD) ships and the fit-out within Australia does provide a model to suggest that the fit-out option might have been employed successfully by local industry. Other options where the superstructure was constructed in Australia and shipped to an offshore shipbuilder for integration may also have been possible.[48]

---

41 *Submission 9*, p. 1.

42 See Mr Hamilton-Smith, *Committee Hansard*, 21 July 2014, p. 48.

43 *Submission 9*, p. 2.

44 *Submission 13*, p. 4.

45 *Submission 13*, p. 3.

46 See Mr Christopher Burns, *Committee Hansard*, 21 July 2014, pp. 40 and 42 and the Hon Martin Hamilton-Smith, *Committee Hansard*, 21 July 2014, p. 50.

47 *Committee Hansard*, 21 July 2014, p. 37.

48 *Submission 2*, p. [1].

4.25 The Navy League of Australia agreed with the view of some witnesses that if the decision were taken to build the two replenishment ships in Australia, there were two locations that, with modifications, appeared possible. It cited the Common User Facility south of Perth:

> The floating dock at the facility would need to be extended to accommodate the new ships. The facility and local resources are at present heavily committed to the off-shore industry.[49]

4.26 It also referred to the ASC at Techport in Adelaide but noted that the ship lift would probably need to be lengthened and possibly strengthened. The League commented on ASC's suggestion that one of the two ships be built at Techport. In its view, however, experience had shown that 'the construction in Australia of a single ship of the complexity of a modern naval replenishment ship to a foreign design could be a risky and expensive exercise'. Overall, it concluded that:

> Extending facilities at great cost and harnessing resources to build a limited number of ships of considerable size is likely to be an expensive and time consuming exercise of little benefit to the long-term industry capability objective. The decision to construct the hulls of the two 28,000 tonne LHDs in Spain therefore made sense.[50]

4.27 Broadly, the evidence presented to the committee is consistent with the assessments of the Australian shipyards in the Future Submarine Industry Skills Plan. There are a number of Australian shipyards that with some investment would be able to build an AOR as proposed in the DCP. The committee notes, however, that Defence has not undertaken an in-depth analysis of the costs involved in upgrading the facilities.[51]

Investment in infrastructure

4.28 A number of submitters noted the importance of considering through life support for the vessels and how the initial costs to upgrade the facilities should be appreciated as a long-term investment. For example, Mr Fletcher suggested to the committee that the amount of expenditure against a project cost of $1.8 billion would be 'a significant and sensible investment in the future of our infrastructure for supporting our Naval shipbuilding industry'. Indeed, in his view: 'you could look at $20 million or $50 million in relation to a $1.8 billion spend and it is not a lot of money in the overall scheme of things. If you take it over the full 30-year life of these things, it is insignificant'.[52]

---

49 *Submission 12*, p. [2].

50 *Submission 12*, p. [2].

51 Department of Defence, answer to question on notice No. 11.

52 *Committee Hansard*, 21 July 2014, p. 49.

4.29 In respect of the $20 million investment in the ship-lifting capacity and its contribution to through-life support, Mr Fletcher argued that the upgrade would benefit sustainment because 'being able to lift a ship out of the water and put it on the hard stand significantly reduces the sustainment work costs'. He explained their rule of thumb—'if anything built as a model in a shed costs $1, it costs $4 on the hard stand and $8 in the water'. He suggested that in the future, the improvements 'would provide an opportunity to offset the overheads of the facility by taking in not only naval ships but larger non-naval ships for maintenance'.[53] He underlined the point that:

> …what we are talking about here is providing sustainment capability, upgrade capability, on an enduring basis for a very limited amount of money, for a facility which has already had $300 million of state government investment in it. We are preserving land for this sort of project around the site. We have an MOU with the Commonwealth to do that. What is this about? It is not necessarily regularity of use of the infrastructure but more maintaining the capability of the workforce to deliver naval shipbuilding and sustainment going forward for the next 30 years.[54]

4.30 Similarly, the South Australian Minister for Defence Industries, the Hon Mr Martin Hamilton-Smith, argued that the investment in infrastructure should be appreciated for the benefits it could bring in the future:

> Given the considerable financial investment by the South Australian government in the Techport facility, the ongoing expansion of Techport to support current and future projects is an enabler to enhancing our naval shipbuilding capabilities and should be used as a basis upon which to build ships like the two supply ships. Further enhancement of the Techport facility would have been possible to support the build of these ships and future sustainment through life support, had adequate notice been given and arrangements made. The ramp down of shipbuilding during 2019 would leave South Australia in a position where Techport would be effectively mothballed without substantial future projects.[55]

4.31 Both submitters argued that the infrastructure becomes a critical Defence asset maintaining the capacity of Australian shipyards to sustain and support Navy's fleet—a fundamental input to capability.[56] Defence SA informed the committee that the Commonwealth has:

> …designated ship dry docking facilities and common user facilities as a Priority Industry Capability [PIC]. The 2011 PIC 'Health Check' of these facilities reported them to be 'healthy' however much has changed since,

---

53 *Committee Hansard*, 21 July 2014, p. 52.

54 *Committee Hansard*, 21 July 2014, p. 49.

55 *Committee Hansard*, 21 July 2014, p. 47.

56 See for example, Defence SA, *Submission 5*, p. [2].

> including the closure of Forgacs' Cairncross dock (Brisbane) and disposal of its floating dock (Newcastle).
>
> There is now a shortage of docking capacity in Australia for supply ship and larger-sized vessels. Garden Island's Captain Cook Graving Dock (Sydney) is the only facility capable of docking supply ships. However, with constant high Navy and commercial demand for the facility it is not suitable for construction, and is not always readily available for unscheduled and/or emergency dockings of vessels this size.[57]

4.32 Indeed, Mr Fletcher noted that:

> …at the moment there is only one piece of infrastructure which can handle the dry-docking of the LHDs and that is Garden Island in Sydney, which is under pressure from a lot of regions. With the closure of Forgacs facility at Cairncross in Brisbane, the LHDs could also be lifted at Techport—Techport has been designed for that—but it would require the expenditure of $175 million. Then we would be able to cope with any ship and any arrangement in the Australian Navy.[58]

4.33 In this regard, Mr Hamilton-Smith suggested that Australia may well be in a position where its inability 'to sustain these supply ships for one reason or another, including the ship lift capability, ultimately causes us grief during a future conflict'. He asked:

> How can we lift those supply ships out of the water and repair them and sustain them during a period of tension or a conflict if we do not have a ship lift capable of doing that?…for a very small investment we would have had not only an industry gain but a defence capability gain. I think this is an argument that needs to be tested against those who would say that an up-front saving gives us a capability and then we can walk away and forget it. If you cannot maintain it, if you cannot sustain it, you do not have an ability to fight a naval conflict.[59]
>
> …
>
> What will happen with the LHD or other larger ships with regard to lifting them out of the water should they need work? Do we have any commitments with any of our suppliers? Will there be other commercial opportunities that emerge whether linked to naval shipbuilding or to other ships?[60]
>
> We have an extended ship-lift capability at Techport—the nation gains a capability. How that might be required to be used in the future, whether it is only for the two supply ships or perhaps for other naval ships we may purchase at some future point or for commercial shipping, or some other

---

57 *Submission 5*, p. [2].

58 *Committee Hansard*, 21 July 2014, p. 53.

59 *Committee Hansard*, 21 July 2014, p. 52.

60 *Committee Hansard*, 21 July 2014, p. 53.

> opportunity which might come up in the mine or energy space, they are questions that are yet to be answered. It is a case almost of building infrastructure and at least you have created the industry opportunity, should it arise.[61]

4.34 The committee understands the importance of considering any investment in major infrastructure from a long term perspective, which includes Australia's ability to sustain and maintain its naval Fleet. The savings generated by having the infrastructure available for the maintenance, repair and upgrade of these vessels should be a major consideration.

Designs

4.35 Aside from the current perceived deficiencies in infrastructure, Mr King also noted the difficulties with the available designs able to meet Australia's requirements. In his view, an open tender would be suitable if there were 'multiple suppliers with access to multiple designs who could make an offer'. But according to Mr King, one of the reasons for having a limited tender was the lack of options when it came to designs. He argued that the decision of a company to tender would be 'true and simple if there were tens of these designs lying around the world and tens of companies in Australia that could compete for it. Mr King argued, however, that Defence operated in 'a very fine world market with very few designs that could meet the need'. He noted:

> The accessible market is not just full of designs that you can access. First of all, say you are going to do a complete onshore build. The last time we did a complete onshore build of a ship of this size, it took 11½ years. In fact, it was *Success*. It took 11½ years and was four times over budget. Instead of buying two ships, we bought one. One might argue that we have learnt a little bit.[62]

4.36 In addition, Defence noted that the production drawings for any ship design are specific to the yard in which the ship is being built. It explained that, therefore:

> …a hybrid build would require either significant re-engineering of production methods, to allow for the much smaller facilities and reduced crane-lifting capacities currently available in Australian yards, or a significant investment in Australian shipbuilding facilities and capabilities, including new block-building halls, paint and blast facilities and new cranes.[63]

4.37 In this regard, Mr King noted that the designs sought by Defence were built by shipyards that own the designs and suggested that for practical reasons there were

---

61 *Committee Hansard*, 21 July 2014, p. 53.

62 *Committee Hansard*, 21 July 2014, p. 16.

63 Department of Defence, answer to question on notice No. 8.

two that would meet Defence's needs.[64] Furthermore, he underscored the fact that the ships were 'supersize structures' and explained that each shipyard has to go about building a design a different way:

> You can imagine this in a car plant, where you have robots set up to build a certain car. What is also important in these designs is, because you want to bring these modules together, you actually have to design your module and your construction technique against the way you are going to build it. So, just because the design exists and that ship exists—has been built before, for example—if you are going to build it in a new shipyard that has never built it before, you may have to re-engineer, as they call it, that whole ship in order to be able to build that ship in that new facility, which has different spaces…[65]

4.38 Along similar lines, the Australian Division of the Royal Institution of Naval Architects understood that no Australian shipbuilder was presently equipped to either design or build the replacement supply vessels 'without drawing on foreign design and/or shipbuilding resources'. It acknowledged that it may be possible for Australian industry 'to complete the fit-out of such vessels'. Even so, it suggested that:

> …given the integration of fit-out with construction in modern shipyards, it would most likely be inordinately expensive and time-consuming to develop a domestic capability for building just two vessels of this size and type compared with what might be available off-the-shelf from existing shipbuilders in Spain or South Korea or elsewhere.[66]

4.39 In regard to the experience with building from the preferred designs, Mr Thompson, AMWU, noted that the Spanish commissioned one of the vessels in 2010 and understood that the South Koreans 'cut steel only last month for a vessel that had been ordered for the UK Navy'.[67] He would not assume that:

> …these builders are not going to have the same difficulties as we would in relation to building these vessels. They are not as complex as the vessels that we are building now. We are of the view that the government should have allowed these builders on their merits to tender for these projects.[68]

4.40 Mr Graeme Dunk, Australian Business Defence Industry, was of the view that ThyssenKrupp Marine Systems had a replenishment ship which, to his knowledge, could be suitable for Australia.[69] He understood that this provided another example of

---

64 *Committee Hansard*, 21 July 2014, p. 24.

65 *Committee Hansard*, 21 July 2014, p. 14.

66 *Submission 6*, p. [2].

67 *Committee Hansard*, 21 July 2014, p. 36.

68 *Committee Hansard*, 21 July 2014, p. 36.

69 *Committee Hansard*, 21 July 2014, p. 42.

a company that may be willing to respond to a tender should they be given the opportunity.[70]

Conclusion

4.41 While there are currently shortfalls in the capacity of Australian shipyards to construct a large AOR as contemplated in the DCP, the deficiencies are not insurmountable. With some investment, local major shipyards could be upgraded to meet the challenge. Furthermore, the initial upfront costs for the improvements should not be considered in isolation but with a view to the long term benefits, especially when such infrastructure could be regarded as a fundamental input to capability.

4.42 The committee has heard a number of assumptions made about the investment that would be required to support the construction in Australia of large vessels such as the supply ships and the long term dividends that would result from such investment but little hard analysis. An open tender would have allowed these matters, including the amount of investment required to upgrade current facilities and the long-term benefits of this investment, to be fully explored and contested.

4.43 It should be noted that investment in infrastructure in Australian shipyards becomes a permanent asset and builds on the considerable infrastructure already existing. It may well be time for Defence in collaboration with industry to undertake a complete and thorough audit or stocktake of Australia's shipyard infrastructure and incorporate the findings into a strategic plan for future naval shipbuilding.

70 *Committee Hansard*, 21 July 2014, p. 45.

Chapter 5

Urgency of acquisition

5.1 At the time the Minister for Defence announced the tender arrangements for the two replenishment ships, he noted the important role of these ships. He said that replenishment vessels were 'essential to support sustained naval deployments'. Indeed as noted earlier, the capability provided by the supply ships enable the rest of the naval fleet to remain at sea for longer periods and to operate in areas far removed from its base. This capability is referred to as a 'force multiplier' and is considered an important part of the Navy's ability to meet its primary objective—'to be able to fight and win in the maritime environment'.[1]

5.2 The Minister for Defence indicated, however, that both ships were approaching the end of their useful life: that HMAS *Success* was in urgent need of replacement and HMAS *Sirius* provided only limited replenishment capability.[2] He stated further:

> HMAS *Success* was commissioned in 1986, this ship should have been transitioned out of service much sooner than now and, if you're familiar with the bathtub curve, the costs of running that particular replenishment ship are climbing, climbing very high and are very burdensome for the Navy.[3]

5.3 In his announcement, the Minister cited 'the urgent need to forestall a capability gap in this crucial area' as one of the main reasons for having the restricted tender.[4] According to the Minister, competition between the two experienced ship

---

1 See for example, DMO, *Getting Sirius A Project Manager's Story: The acquisition and modification of an auxiliary oiler HMAS Sirius*, 2008, pp. 3–4 and ANAO, Audit Report No.20 2006–07, Performance Audit, *Purchase, Chartering and Modification of the New Fleet Oiler*, Department of Defence, Defence Materiel Organisation, p. 13, http://anao.gov.au/~/media/Uploads/Documents/2006%2007_audit_report_20.pdf (accessed 6 August 2014).

2 'Minister for Defence—Boosting Australia's maritime capabilities', 6 June 2014, http://www.minister.defence.gov.au/2014/06/06/minister-for-defence-boosting-australias-maritime-capabilities/ (accessed 4 August 2014).

3 'Minister for Defence—Transcript—Naval shipbuilding announcement, CEA Technologies, Canberra', 6 June 2014, p. 2, http://www.minister.defence.gov.au/2014/06/06/minister-for-defence-transcript-naval-shipbuilding-announcement/ (accessed 4 August 2014).

4 'Minister for Defence—Boosting Australia's maritime capabilities', 6 June 2014, http://www.minister.defence.gov.au/2014/06/06/minister-for-defence-boosting-australias-maritime-capabilities/ (accessed 4 August 2014).

builders would be 'the best way to ensure delivery of capable, cost effective vessels in the time frame required'.[5]

5.4 Mr King supported the view that the ships needed to be replaced. He noted the requirement for at least three programs to be underway relatively quickly—the Future Frigates program, the AORs, and Pacific patrol boats. He indicated that the most urgent and highest priority was the AOR replacement for the Navy citing the age of *Success* whose life of type expires in 2016. [6]

5.5 In Mr King's assessment, if *Success* continued beyond 2017, which it would have to do, 'every year will get more expensive and more difficult'.[7] He noted that Defence was already spending a considerable amount of money to keep the old ship afloat. He also referred to the bathtub curve effect:

> When you buy something you have early failures, then you use it for a large number of years pretty efficiently with limited maintenance, and then towards the end of its life it seems to become very old and in fact parts are not even replaceable. In terms of our ships they can be 35 years old. Imagine getting a pump that is 35 years old. *Success* is well and truly into that part of its life.[8]

5.6 Indeed, between 2010 and 2012, HMAS *Success* underwent significant maintenance over a 16 month period, which included an IMO requirement to complete a double-hulling process and the completion of a long standing propulsion alignment issue. Also, a significant amount of emergent work, consistent with a ship of this age, has been carried out. The expenditure on HMAS *Success* during the period December 2010 and April 2012 was:

December 2010–April 2011	IMO Hull Conversion	$17.8M
June 2011–November 2011	Maintenance Period	$13.8M
December 2011–April 2012	Propulsion Alignment and ongoing Maintenance	$4.1M[9] (budgeted at April 2012)

5 'Minister for Defence—Boosting Australia's maritime capabilities', 6 June 2014, http://www.minister.defence.gov.au/2014/06/06/minister-for-defence-boosting-australias-maritime-capabilities/ (accessed 4 August 2014).

6 *Committee Hansard*, 21 July 2014, p. 12.

7 *Committee Hansard*, 21 July 2014, p. 25.

8 *Committee Hansard*, 21 July 2014, p. 12.

9 Department of Defence, 'Questions and Responses to David Ellery, the Canberra Times in relation to articles published on 9 April 2012', 9 April 2012, p. 6, http://www.minister.defence.gov.au/2012/04/09/questions-and-responses-provided-to-david-ellery-the-canberra-times-in-relation-to-articles-published-on-9-april-2012/ (accessed 4 August 2014).

5.7 In addition to maintenance and repair costs, the Department received advice in 2012 indicating that 'extending the life of HMAS *Success* for five years beyond the current Planned Withdrawal Date of 2018 would require expenditure just in excess of $20M'.[10] Mr King spoke of the three possible options:

- an offshore build, which is the option that Defence is taking;
- a complete onshore build; and
- a hybrid build, as with the LHD, with the bulk of the ship produced in Spain and elements of it fitted out in Australia.[11]

5.8 Mr King stated that the urgency associated with acquiring the two supply ships reflected the balancing of the complete suite of Defence's need against the budget and 'when you can afford to embark on programs'.[12] He then explained:

> The quickest replacement time that we think is even remotely possible is about 3½ years build time—that sort of order. So we need to get into contract soon. Not only are these needed for military capability, but every year…*Success*…is not replaced is an increased maintenance cost that is likely to accelerate. It is beyond its design life in 2016. Even at the moment, we are offering 2017. So that is the principle behind it.[13]

5.9 Although noting that Defence sometimes has a capability gap due to a lack of funds, Mr King would not be drawn on whether a capability gap existed in respect of the supply ships. He stated that such a matter was getting well beyond his 'spectrum of business', which was 'to pursue acquiring products and so on'. He stated:

> In terms of whole capability planning, where the money is spent and when, that is really better handled by Defence more broadly. But there is a reality: countries haven't the money, Defence has needs and they have to be balanced off.[14]

5.10 Witnesses agreed that Defence and industry had been aware of the need to replace the supply ships for years. For example, according to the AMWU, some of its members working on HMAS *Success*, understood that the ship was getting old, was becoming increasingly more expensive to maintain and needed to be replaced soon.[15] The Australian Business Defence Industry also referred to the imperative to replace

---

10 Department of Defence, 'Questions and Responses to David Ellery, the Canberra Times in relation to articles published on 9 April 2012', 9 April 2012, p. 7, http://www.minister.defence.gov.au/2012/04/09/questions-and-responses-provided-to-david-ellery-the-canberra-times-in-relation-to-articles-published-on-9-april-2012/ (accessed 4 August 2014).

11 *Committee Hansard*, 21 July 2014, p. 15.

12 *Committee Hansard*, 21 July 2014, p. 22.

13 *Committee Hansard*, 21 July 2014, p. 15.

14 *Committee Hansard*, 21 July 2014, p. 22.

15 *Submission 4*, p. [2].

the ships, which were near or at their end of operational life.[16] Likewise, Mr Dunk recognised that there were problems with *Success* and *Sirius* regarding their longevity. The Navy League of Australia similarly acknowledged that one of the main drivers to call a limited tender from the two overseas shipyards stemmed from the pressing need to replace the two supply ships. It noted that plans to replace HMAS *Success* had been around for some time but the passage of time without further action had led to the urgency:

> HMAS *Success* is now 28 years old and at an age when she would normally be replaced. It is believed that the ship is now more difficult to support as her equipment ages and its reliability reduces. She has recently completed a major refit. It is understood that further work is planned to address equipment deficiencies to enable the ship to remain in service until a replacement can be acquired. [17]

5.11 The League also referred to HMAS *Sirius,* which, although relatively new, is a converted commercial tanker that, in its view, 'lacks the comprehensive support capability provided by HMAS *Success*'.[18]

Timing and schedule

5.12 No one denied that the Navy needs replenishment ships to service the rest of the fleet and that their replacement was overdue. Even so, a few witnesses had proposals that, in their view, would maintain the afloat support capability and not cause significant delay to the acquisition of the vessels.

5.13 While Mr Christopher Burns, Defence Teaming Centre, acknowledged that no-one had put forward a proposal to build the whole vessel in Australia, he noted that two proposals for a hybrid build had been submitted.[19] For example, as noted earlier, BAE systems informed the committee that it had submitted an unsolicited proposal to government in September 2012 setting out a hybrid build program, with part of the ship built overseas and part of the ship built in Australia.[20] It estimated that the additional time required producing the replenishment ships according to its proposed hybrid model would be approximately six months.[21]

5.14 Mr King told the committee that even in informal discussions no company had suggested to him or his organisation that this ship should be built in Australia—a partnership though was different. Mr King informed the committee that he was aware

16 *Submission 2,* p. [2].

17 *Submission 12,* p. [2].

18 *Submission 12*, p. [2].

19 *Committee Hansard*, 21 July 2014, p. 42.

20 *Submission 9*, p. 1.

21 *Submission 9*, p. 2.

of an unsolicited proposal from BAE for a hybrid build.[22] Returning to the matter of timing, however, Mr King argued that hybrid builds or Australian builds introduce complexity and pressure on schedule. He explained that he worked on the broad principle that:

> …if we buy offshore, it comes on time; if we do hybrid; it comes a bit late; and if we do totally onshore, it is late. That is the basic premise.[23]

5.15 He used the LHD as an example, noting that the vessel was supposed to be delivered months ago but was still late by seven months. He explained further that the builders had all the time they wanted to construct that ship:

> I have to make judgements over the top of a commercial proposal…On an LHD there were 30,000 man-hours of work left over that Navantia did not do. It cost 70,000 hours in Australia. I have to put forward a degree of credibility, and for someone to propose that a hybrid build would add only six months is not credible. I spend most of my time trying to explain to the public why the AWD is late, why the LHD is now seven months late. And it is because we get more ambitious than we are able to deliver. I would like to see an industry that can deliver.[24]

5.16 While stating clearly that it was not credible to suggest that the ship would only take an additional six months to deliver, Mr King indicated that he had subsequently received 'other unsolicited offers for offshore builds, which offered different numbers'.[25] He told the committee that he did 'not put a lot of confidence in any unsolicited proposals'.

5.17 When asked why Defence did not go to an open tender in order to test the claims being made about the various options and the potential to meet the challenges of the build, Mr King agreed that a tender process would test such claims, but went on to explain that the actual tenders:

> …typically, tend to be wrong, at least in schedule. The point I have made on many occasions…is that since 2000 our Defence procurement has run seven per cent under budget. So, typically we get budget right. Our schedule is about 35 per cent later than we advertised. It is getting better, but I can assure you that if I relied on unsolicited information we would be getting worse again. So, you are right: we do go to tender. Even then, though, we still make judgements.[26]

---

22 *Committee Hansard*, 21 July 2014, p. 19.

23 *Committee Hansard*, 21 July 2014, p. 31.

24 *Committee Hansard*, 21 July 2014, p. 19.

25 *Committee Hansard*, 21 July 2014, p. 19.

26 *Committee Hansard*, 21 July 2014, p. 19.

5.18 Mr King noted further that the main considerations centred on capability, time and cost.[27] According to Mr King, he was regularly chastised by members of parliament and the public and by journalists about projects being late when he had relied on industry giving him time and cost. He told the committee:

> …over and over again, I rarely hear that industry is being criticised for that misjudgement; it is me. So we have learned to modify, if you like, industry claims about what they think on that.[28]

5.19 Based on his recent experience in a couple of Asian shipyards, Mr King told the committee that they have 'not missed a delivery for years, and they talk about three weeks as being a terrible error. We are talking about years'.[29] He noted that countries around the world 'can build these ships well'.

Lease vessel

5.20 The AMWU was of the view that Defence had options other than the current proposal for a limited tender for the supply ships and that an open tender should have been on the table.[30] Mr Thompson, AMWU, informed the committee that in 2013, the union recommended that Defence investigate interim solutions to deal with Navy's requirement for replenishment vessels. The union proposed leasing a ship to temporarily replace *Success*, as Defence had previously done with the *Cantabria* when upgrade work was being done on *Success*. Mr Thompson suggested that the lease replacement may be for five to eight years, depending on how quickly an Australian project could be approved.[31] He reasoned:

> This would take the interim schedule pressure off building the new ship and provide the opportunity to build new ships in Australia. A hull block could be built in different shipyards. A ship could be consolidated in Perth, Adelaide or wherever, subject to investment.[32]

5.21 The union was of the view that the circumstances of *Sirius* were not as urgent.[33] It noted that while the *Sirius* was an Auxiliary Oiler and not an Auxiliary Oiler Replenishment like *Success*, there was no pressing need to replace the ship because of its age or cost to maintain. It conceded that while it may be ideal to get the additional capability and replace the ship early, by 'all accounts, *Sirius* has served the Navy well for the past eight years'.[34]

---

27 *Committee Hansard*, 21 July 2014, p. 17.

28 *Committee Hansard*, 21 July 2014, p. 17.

29 *Committee Hansard*, 21 July 2014, p. 31.

30 *Committee Hansard*, 21 July 2014, p. 34.

31 *Committee Hansard*, 21 July 2014, pp. 33 and 34.

32 *Committee Hansard*, 21 July 2014, p. 34.

33 *Committee Hansard*, 21 July 2014, p. 33.

34 *Submission 4*, p. [2].

5.22 According to Mr Thompson, if there were no interim option, there could be another solution, which would entail a hybrid build of ship 1 while sending Australian shipbuilders to that shipyard to learn. Then:

> Ship 2 could be built in Australia, using this as an option to invest in the Australian capability and help bridge the gap between the current and future work.[35]

5.23 The option of leasing a vessel, as done previously, was put to Mr King who indicated that that arrangement had been a 'one-off, special arrangement' and that ultimately Defence had to purchase the replacement ships. He indicated that leasing a vessel or acquiring a second-hand AOR was considered and determined not to be feasible.[36] According to Defence, open market research revealed that there were no suitable vessels evident on the world market to purchase as a second hand AOR. Furthermore, that:

> Defence engagement, primarily through navy-to-navy contacts, with allies for the prospect of leasing an in-service foreign navy AOR was also unsuccessful, with no suitable leasing options identified.[37]

5.24 Mr King informed the committee that Defence had, for several years, been working on this problem, working through options.[38]

Conclusion

5.25 The committee understands the need to purchase the replacement replenishment ships to avoid a capability gap and to stem the continuing costs of maintaining an ageing vessel. The urgency of this situation highlights the need for government to have a realistic and practical long term capability plan.

5.26 A number of witnesses have put forward proposals that could address this potential shortfall in capability but without having to resort to a limited tender. They include a hybrid build with a slightly longer schedule or finding a temporary replacement by leasing a vessel. Defence indicated that leasing a vessel or purchasing a second-hand one were not viable options. Even so, the committee is concerned that the pressing need to acquire the vessels has led to a decision that effectively closes down options and prevents a more open, competitive and, indeed, fairer process.

35 *Committee Hansard*, 21 July 2014, p. 34.

36 *Committee Hansard*, 21 July 2014, p. 18.

37 Department of Defence, answer to question on notice No. 3.

38 *Committee Hansard*, 21 July 2014, p. 18.

Chapter 6

Productivity

6.1 When announcing the limited tender for the new supply ships, the Minister for Defence made a direct link between the decision to restrict the tender to two overseas shipbuilders and the productivity of local shipyards. Indeed, he cited the 'current low productivity of shipbuilders involved in the AWD program and value for money considerations' as two of three reasons for proceeding with the limited tender.[1] He made his meaning clear that 'Australian industry must be internationally competitive and meet international productivity benchmarks'.[2]

6.2 In this chapter, the committee considers this statement about the need to acquire two new supply ships and Australia's competitiveness to build them. The committee's main focus is on the productivity of Australian shipyards and the cost effectiveness of building the ships in Australia. In this regard, the committee believes that it is important to place the decision to conduct a limited tender for the supply ships in the context of the experiences with the AWDs.

AWDs

6.3 The AWD project is being delivered through an alliance-based contracting arrangement between ASC AWD Shipbuilder Pty Ltd, Raytheon Australia Pty Ltd and the Government, represented by the DMO. This project—to acquire three Hobart Air Warfare Destroyers and their support system—is one of the largest Defence procurement projects in Australia and intended to form a critical element of the ADF's joint air warfare defence capability. It received first pass approval in 2005 and second pass in 2007. The three ships were to be built in Australia.

6.4 In 2010, however, signs of trouble surfaced in this key acquisition program. At this time, difficulties were encountered in relation to the engineering and construction of some of the first AWD hull blocks. To address this problem, block work was reallocated between BAE, Forgacs and Navantia and the Alliance Operational Schedule was amended. On 6 September 2012, following stakeholder review and support for the time-line extension and resource considerations, the then Minister for Defence announced that the AWD schedule would be re-baselined.[3]

---

1 'Minister for Defence—Boosting Australia's maritime capabilities', 6 June 2014.

2 'Minister for Defence—Transcript—Naval shipbuilding announcement, CEA Technologies, Canberra', 6 June 2014, p. 6, http://www.minister.defence.gov.au/2014/06/06/minister-for-defence-transcript-naval-shipbuilding-announcement/ (accessed 4 August 2014).

3 Australian National Audit Office, Report No. 12 2013–14, *2012–13 Major Projects Report*, December 2013, p. 153, http://www.anao.gov.au/~/media/Files/Audit%20Reports/2013%202014/Assurance%20Report%2012/AssuranceReport-2013-2014_12.pdf (accessed 6 August 2014).

This measure would extend the period of work for the Alliance and its partners, including the shipyards in Adelaide (ASC) and Newcastle (Forgacs). According to the minister the revised project plan would:

- reduce peak demand on project critical resources and facilities and project risk;
- not increase the cost of the project nor result in the loss of any jobs; and
- very importantly, help retain skills in the naval shipbuilding industry.[4]

6.5 The re-baselined construction schedule was intended to help Navy reduce the demands and risks associated with accepting into service two major capabilities (LHDs and the AWD) at around the same time.[5] In November 2013, DMO noted that the key challenge for the AWD project was:

> …to maintain an efficient, sustainable workforce that is successful in progressing the consolidation and integration of the AWDs, leading into through-life support activities for the destroyers and future initiatives to protect the naval shipbuilding industry capability ahead of the future submarine program.[6]

6.6 Concerns about the project, however, did not abate.[7] On 18 December 2013, the Minister for Finance announced that, since the Coalition had assumed government, he had received detailed briefings from key stakeholders associated with the AWD program. In his assessment, there were 'clearly issues associated with this important program' and he foreshadowed the establishment of an independent review.[8] The review was intended to give government an independent perspective on all of the issues with the program and to make some recommendations on the best way

---

4 'Minister for Defence, Minister for Defence Materiel and Minister for Finance and Deregulation—Joint Media Release—Air Warfare Destroyer update', 6 September 2012, p. 3, http://www.minister.defence.gov.au/2012/09/06/minister-for-defence-and-minister-for-defence-materiel-joint-media-release-air-warfare-destroyer-update-2/ (accessed 4 August 2014).

5 'Minister for Defence, Minister for Defence Materiel and Minister for Finance and Deregulation—Joint Media Release—Air Warfare Destroyer update', 6 September 2012, p. 3.

6 DMO website, 'Air Warfare Destroyer, SEA 4000 Phase 3 Build' http://www.defence.gov.au/dmo/awd/sea4000/ (accessed 6 August 2014).

7 See for example, Sarah Martin, The *Australian*, 'Fears of further delays to the nation's biggest defence project', September 18, 2013, http://www.theaustralian.com.au/national-affairs/policy/fears-of-further-delays-to-the-nations-biggest-defence-project/story-e6frg8yo-1226721296385 (accessed 6 August 2014).

8 'Minister for Finance and Minister for Defence—Coalition committed to the efficient delivery of the Air Warfare Destroyer programme', 18 December 2013, http://www.minister.defence.gov.au/2013/12/18/minister-for-finance-and-minister-for-defence-coalition-committed-to-the-efficient-delivery-of-the-air-warfare-destroyer-programme/ (accessed 4 August 2014).

to proceed.[9] On 25 February 2014, the Minister announced the appointment of former United States Secretary of Navy, Professor Don Winter, and former Transfield chief, Dr John White, to conduct jointly the independent review of the AWD program.[10]

6.7 While this review was underway, the ANAO released its performance audit report on 6 March 2014 on the AWDs. The report, which was highly critical of the performance of the project, drew widespread media and industry attention.[11] In brief, the ANAO audit found:

> Despite the contractual arrangements put in place to manage the project, the AWD Program has experienced a range of delivery issues, including significant immaturity in detailed design documentation, major block construction problems and substantially lower than anticipated construction productivity. The design and construction issues have led to extensive, time-consuming and costly rework.[12]

6.8 On 4 June 2014, a brief summary of the findings of the independent review on the AWD project, commonly referred to as the Winter review, were made public.[13] In the review's assessment there were two direct causes for cost and schedule growth:

- the initial program plan for AWD development and production was unrealistic in its cost and schedule estimates; and

---

9 'Minister for Finance and Minister for Defence—Joint Press Conference—Review of the Air Warfare Destroyer program', 4 June 2014, p. 1, http://www.minister.defence.gov.au/2014/06/04/minister-for-defence-and-minister-for-finance-joint-press-conference-review-of-the-air-warfare-destroyer-program/ (accessed 4 August 2014).

10 Senator The Hon. Mathias Cormann, Minister for Finance and Senator The Hon. David Johnston, Minister for Defence, 'Review of the Air Warfare Destroyer Program', MC 6/14, 25 February 2014, http://www.financeminister.gov.au/media/2014/mr_2014-06.html (accessed 4 August 2014).

11 See for example, Professional Engineers Australia, 'Minister must boost engineering capacity on the AWD and SEA1000 projects to stop cost blowouts', http://www.professionalsaustralia.org.au/groups/engineers/advocacy/?id=3060 and Engineers Australia, 'Audit critical of Air Warfare Destroyer project', 6 March 2014, http://www.engineersaustralia.org.au/news/audit-critical-air-warfare-destroyer-project and HIS Jane's Weekly, 'Australian government auditor slams AWD programme management', 5 March 2014, http://www.janes.com/article/34998/australian-government-auditor-slams-awd-programme-management and *Financial Review*, 'Audit Slams $8bn warship project', 6 March 2014, http://www.afr.com/p/national/audits_slams_bn_warship_project_KBbPO0n4lw02A79hEUQWDN (accessed 6 August 2014).

12 Australian National Audit Office, Audit Report No. 22 2013–14 Performance Audit, *Air Warfare Destroyer Program*, tabled 6 March 2014, paragraph 21.

13 'Report of the Independent Review into the performance of the Hobart Class Air Warfare Destroyer Program conducted by Professor Donald C. Winter and Dr John White', 4 June 2014, http://www.financeminister.gov.au/media/2014/docs/air-warfare-destroyer-program-review-0.pdf (accessed 8 August 2014).

- the Alliance, as structured, composed and staffed, has been unable to effectively manage the AWD Program.

6.9 It also identified the following contributing causes:

- systems engineering on the AWD Program has been of limited effect;
- the AWD Alliance and ASC were unable to effectively manage the AWD block subcontractors; and
- the oversight provided by the Commonwealth of Australia has been of limited effect.

6.10 Importantly, and relevant to this committee's inquiry, the review also considered systemic issues that could affect any other naval shipbuilding programs in Australia, and identified the following:

- the limited base of shipbuilding activity in Australia materially impacted the AWD Program; and
- the Commonwealth of Australia has not developed a long term shipbuilding plan that can cost-effectively support the needs of the RAN, while sustaining the Australian industrial shipbuilding base.[14]

6.11 In the joint media release accompanying the publication of the summary of the Winter review, the Minister for Finance referred to the Auditor General's finding of a $300 million cost overrun with the AWD project. He stated clearly that:

> …the position that we inherited was a deteriorating position. The overall project is 21 months behind schedule. The remedial action we are announcing today and that we are proposing to implement over the next couple of months is designed to make up as much time as possible. But I don't believe we will be able to make up all of the time. The first ship was due for delivery in December 2014. Manifestly we're not going to be able to reach that deadline.[15]

6.12 In this same media release, the Minister for Defence spoke of the need for the project to improve and further that the government was 'not going to tolerate the sort of outputs that have been put on the table from a productivity perspective particularly'. He indicated that the government would 'demand commercial discipline in the project

---

14 'Report of the Independent Review into the performance of the Hobart Class Air Warfare Destroyer Program conducted by Professor Donald C. Winter and Dr John White', 4 June 2014, http://www.financeminister.gov.au/media/2014/docs/air-warfare-destroyer-program-review-0.pdf (accessed 8 August 2014).

15 'Minister for Finance and Minister for Defence—Joint Press Conference—Review of the Air Warfare Destroyer program', 4 June 2014, http://www.minister.defence.gov.au/2014/06/04/minister-for-defence-and-minister-for-finance-joint-press-conference-review-of-the-air-warfare-destroyer-program/ (accessed 4 August 2014).

and we're going to have it'.[16] The Minister for Defence sent an unmistakeable message to industry:

> …if we can't get this right, if we can't get this to an acceptable benchmark standard, it doesn't say a lot about our future capacity. Now we've got potentially another 8 future frigates that we would like to build in Australia, but I am sending a very clear message out today. If we can't fix this, that is something that will certainly be in jeopardy, because I don't believe the Government will support an enterprise that cannot deliver productively.[17]

Announcement of tender for new supply ships

6.13 Two days after the release of a summary of the findings of the Winter report, the Minister for Defence announced what he termed 'the first set of key initiatives in the Abbott Government's long-term strategic naval plan'. They included three major decisions:

- first pass approval for Defence to conduct a limited tender process between Navantia of Spain and Daewoo Shipbuilding and Marine Engineering (DSME) of South Korea for the construction of two replacement replenishment vessels based on existing designs;
- bringing forward preliminary design work to ensure Australia maintains the necessary capabilities to retain the option of building the future frigate in Australia; and
- bringing forward an open competition with Australian industry to construct more than 20 replacement Pacific Patrol Boats.[18]

6.14 In his statement, the Minister, referring directly to the government's first pass approval to conduct a limited competitive tender process for the supply ships, attributed the decision to, among other things:

- the current low productivity of shipbuilders involved in the AWD program; and
- value for money considerations.[19]

6.15 During his announcement, the Minister, when referring to the viability of Australia's shipbuilding industry, placed a heavy emphasis on the need for productivity improvements and cost-effectiveness.[20]

---

16 'Minister for Finance and Minister for Defence—Joint Press Conference—Review of the Air Warfare Destroyer program', 4 June 2014, p. 6.

17 'Minister for Finance and Minister for Defence—Joint Press Conference—Review of the Air Warfare Destroyer program', 4 June 2014, p. 8.

18 'Minister for Defence—Boosting Australia's maritime capabilities', 6 June 2014, http://www.minister.defence.gov.au/2014/06/06/minister-for-defence-boosting-australias-maritime-capabilities/ (accessed 4 August 2014).

19 'Minister for Defence—Boosting Australia's maritime capabilities', 6 June 2014.

Productivity—compensated growth tonnage

6.16 As an indicator of the performance of Australian shipyards, the Minister for Defence cited the following figures for the AWD project—the international benchmark 'is 60 man-hours per tonne, we set the benchmark for that program at 80 man-hours per tonne, currently it is running at 150 man-hours per tonne…' To his mind, getting back on track was 'essential to the future of naval shipbuilding'.[21]

6.17 Mr King explained the usefulness of using this compensated growth tonnage measure as a way of comparing how many man-hours it takes to build a tonne of ship. He noted that building a tonne of a supertanker was easier than building a tonne of a submarine, so First Marine International (FMI), an independent, internationally renowned organisation, had developed a series of co-efficiencies that would allow this comparison. He confirmed the accuracy of the statistics on productivity quoted by the Minister that: 60 man-hours was the world benchmark for compensated growth tonnage—the best in the world; Defence set 80 man-hours per tonne as a target for the AWD; and the first ship came in at 150 man-hours per tonne.

6.18 According to Mr King, the first ship always takes more man-hours per tonne and that the DMO expected the AWD project could achieve the 80 man-hours. He informed the committee that in 2010, when the shipyards were getting into the production phase, the DMO engaged the FMI to evaluate every shipyard. The FMI produced a report for the years 2011, 2012 and 2013 and Mr King provided information based on the reports to each shipyard so they could be fully aware of their productivity against compensated growth tonnage.[22] Furthermore, based on comparisons of yards all around the world, the FMI provided training and advice to the Australian yards on the most efficient way to improve their business. Mr King explained that the FMI stated in its last report that basically: BAE had made substantial improvement; ASC had shown no demonstrable or noticeable improvement despite its efforts; and Forgacs had deteriorated.

AWD experience and acquiring new supply ships

6.19 Mr King drew on his extensive experience with the AWDs to highlight some of the difficulties experienced with an Australian build. While he did not agree fully with the findings of the Winter report he, in the main, concurred with the overall summary presented by the Minister for Finance, which identified problems with:

- the initial program plan;

---

20 'Minister for Defence—Transcript—Naval shipbuilding announcement, CEA Technologies, Canberra', 6 June 2014, p. 5, http://www.minister.defence.gov.au/2014/06/06/minister-for-defence-transcript-naval-shipbuilding-announcement/ (accessed 4 August 2014).

21 'Minister for Defence—Transcript—Naval shipbuilding announcement, CEA Technologies, Canberra', 6 June 2014, p. 11.

22 Foreign Affairs, Defence and Trade Legislation Committee, Estimates, *Committee Hansard*, 3 June 2014, p. 50.

- inadequate government oversight;
- the alliance structure which seemed incapable to manage issues if and as they arose; and
- the performance and capabilities of ASC and major subcontractors.[23]

6.20 According to Mr King, when Defence embarked on the AWD program, the South Australian government and Defence SA made a compelling offer.[24] He explained:

> We thought of everything that we could think about to start up that air warfare destroyer project. We looked at the drawing packs. We looked at the time. We developed a schedule. We created a longer schedule than has ever been developed for any comparable ship in the world in order to give Australian industry an opportunity to get on top of it and get it right. And guess what? Despite all those best efforts, despite being what I thought was as practical as I could be, despite industry doing as much work as we thought we could to understand that problem, and we spent $255 million between first and second pass looking at every practical thing we could …but despite all that, and even when we came to build an existing design, we are still having budget problems and we are still having schedule slip.[25]

6.21 One of the lessons to be learnt from the problems with the AWD project, as Mr King observed, was 'you have got to temper marketing and ambition with experience and the reality of what we face'.[26] He then proceeded to apply the AWD experience to future projects explaining that with the AWD there was a design that had been built 4½ times. He again stressed that, at the time, he thought that the DMO had given the AWDs all the consideration that could reasonably be given in order to embark on the project. With the AWD problems in mind, he referred to the prospect of building the supply ships in Australia:

> …suddenly, magically, this time we can transfer all that design work or even some of that design work to Australia and there will not be a problem. There will be a serious problem.[27]

6.22 Mr King stated that exactly the same problems would emerge if Defence were to build the AOR in Australia.[28]

---

23 'Minister for Finance and Minister for Defence—Joint Press Conference—Review of the Air Warfare Destroyer program', 4 June 2014, p. 2, http://www.minister.defence.gov.au/2014/06/04/minister-for-defence-and-minister-for-finance-joint-press-conference-review-of-the-air-warfare-destroyer-program/ (accessed 4 August 2014).

24 *Committee Hansard*, 21 July 2014, p. 26.

25 *Committee Hansard*, 21 July 2014, p. 21.

26 *Committee Hansard*, 21 July 2014, p. 21.

27 *Committee Hansard*, 21 July 2014, p. 22.

28 *Committee Hansard*, 21 July 2014, p. 22.

Defence industries response

6.23 Representatives from Defence industries took note of the connection between the observations made about the productivity of Australian shipyards in the context of the AWD with the decision to tender for the replacement replenishment vessels. Indeed, Mr Christopher Burns, Defence Teaming Centre, noted the negative comment made about the productivity of Australia's naval shipbuilding industry based on statistics contained in the Winter report.[29] To his mind:

> Industry was advised that, due to their poor productivity, evidenced by the unreleased Winter review, Australian industry would not be afforded the opportunity to tender for the Navy's replacement replenishment ships. With no mention of the unsolicited hybrid build proposals offered 18 months earlier by ASC and BAE, the government announced that it would offer their partners in South Korea and Spain limited competitive tenders for Australia's replacement replenishment ships, effectively cutting ASC, BAE and Australian industry out of the opportunity.[30]

6.24 The Defence Teaming Centre questioned the basis for these assertions about poor productivity and posed a series of questions, especially about comparing the productivity achieved on the first ship as yet uncompleted with that of a mature shipyard producing ships at an advanced stage of a continuous run.

6.25 Mr Thompson, AMWU, informed the committee that the union accepted that the performance and construction of the three destroyers was a problem which had caused schedule and cost overruns. The union stressed, however, that the problems were not the result of the production workforce and poor performance—a finding supported by the ANAO.[31] According to the union, the ANAO audit did not have anything to say in relation to the productive performance.[32] Indeed, the AMWU suggested that the workforce engaged in building the AWDs was a productive workforce. It understood that the production workforce and its members have an important role in building industry's capacity and improving productivity.[33]

6.26 The South Australian Minister for Defence Industries, the Hon Mr Hamilton-Smith, also referred to the criticisms levelled at the AWD project and argued that partly they were being used to justify the decision about the two supply ships. By way of reference, he noted, however, that if one talks to the gas and energy industry about projects of this size, a 21-month delay and a $300 million overspend on a project of this magnitude would not be a surprise. He was of view that it was wrong to exaggerate any issues with the AWD's first of type as some form of justification

---

29 *Committee Hansard*, 21 July 2014, p. 40.

30 *Committee Hansard*, 21 July 2014, p. 40. See also *Submission 10*, p. 3.

31 *Committee Hansard*, 21 July 2014, p. 33.

32 *Committee Hansard*, 21 July 2014, p. 35.

33 Mr Glenn Thompson, *Committee Hansard*, 21 July 2014, p. 33.

against building the supply ships here.[34] Mr Hamilton-Smith noted that cost overruns, when you have projects of up to $8 billion or more, are a part of the business. He explained:

> These are complex projects and one ought not over-egg these overruns…I think DMO and the federal government generally can be a little sensitive when a project runs overboard and run off looking for scapegoats or people to lay the blame before. Rather, we need to focus on how we get the deal flow right, how we get the continuity of work right, estimating projects accurately in the first instance at the outset of the project and realising that the true benefit of the project probably lies in the savings made in ship No. 3 or No. 4 in the cycle or the run.[35]

6.27 It should be remembered that BAE systems informed the committee that it had submitted an unsolicited proposal to government in September 2012 setting out a hybrid build program.[36] It informed the committee that it has achieved significant improvements in productivity through its work on the LHD project and building blocks for the AWD program, noting that the Williamstown shipyard was currently at 76 man-hours per Compensated Gross Tonne.[37] While, the FMI report quoted earlier supported this claim of improved productivity at BAE, it also found that ASC and Forgacs had shown no such improvement.

6.28 In this regard, it is important to note that Defence acknowledged the work done by BAE to lift productivity. It informed the committee that BAE addressed problems by bringing in shipbuilding experts from the US and the UK. It also referred to the FMI benchmarking data showing that BAE had improved in terms of block productivity since the initial production issues in 2010. Defence stated that it had 'no concerns about BAE's current level of block productivity and, as a commercial shipbuilding company, BAE undoubtedly is looking to improve its performance'.[38] In its view, past events show that BAE has 'the means, ability and willingness to react to any decrease in productivity'.[39]

6.29 When Mr King referred to productivity, he was not speaking about the construction workers. He informed the committee that productivity drives up the cost of producing a ship, which does not necessarily depend on 'the ability of a welder to weld a metre of weld'. In this regard, he noted that Australia is probably as good at

---

34 *Committee Hansard*, 21 July 2014, p. 47.

35 *Committee Hansard*, 21 July 2014, p. 51.

36 *Submission 9*, p. 1.

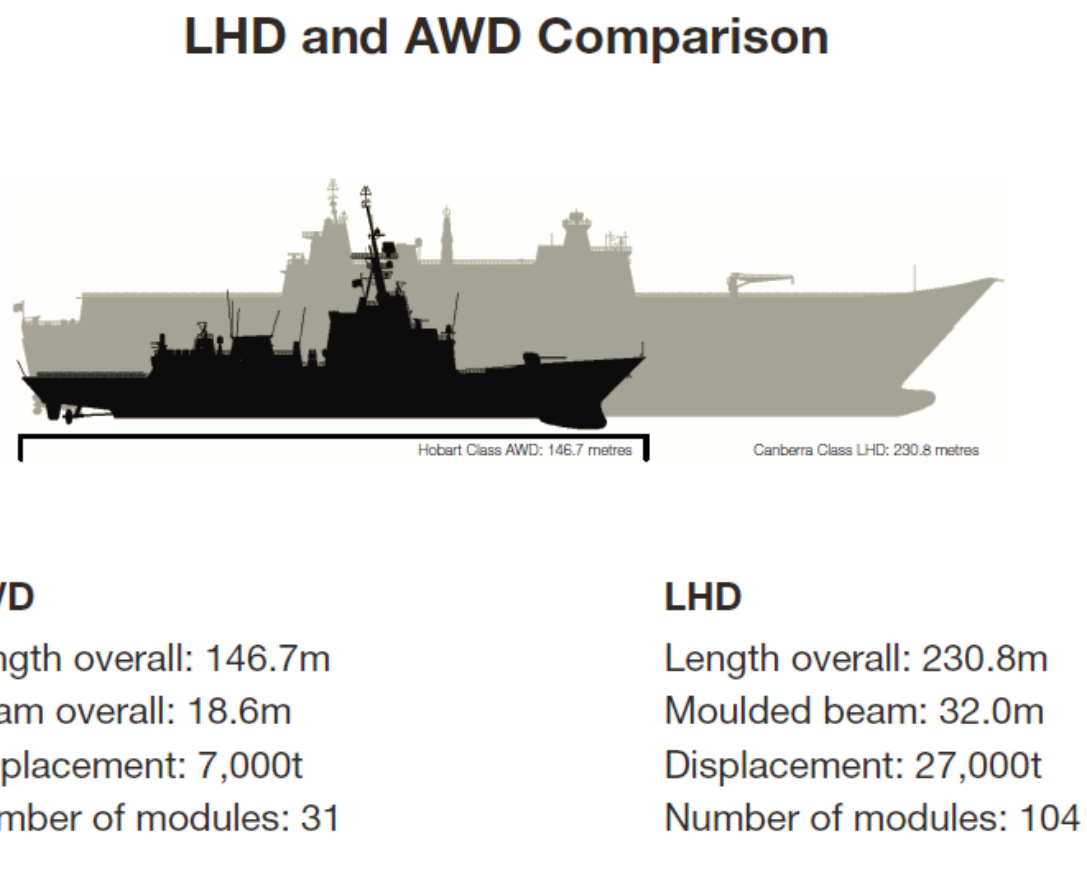
37 *Submission 9*, p. 2.

38 Department of Defence, answer to question on notice No. 13.

39 Department of Defence, answer to question on notice No. 13.

welding as 'anybody in the world', but that it was the organisations and structures around the ship build that count and not the individual.[40]

Figure 6.1: Illustrates ship dimensions and block quantities.



FMI use Compensated Gross Tonnage (CGT) as an indicator of the effort required to build a ship, as it takes account of the size, complexity and the customer oversight required in building vessels of different types. While the Air Warfare Destroyer (AWD) is about one quarter of the displacement of the Landing Helicopter Dock (LHD), the AWD is a much more complex vessel, given the levels of equipment installed on the ship. The CGT values for both ships, however, are similar.[41]

40 *Committee Hansard*, 21 July 2014, pp. 13–14.

41 Department of Defence, answer to question on notice No. 30.

6.30 According to Mr King, productivity efficiency was necessary for a shipbuilding industry to be effective and efficient and that productivity efficiency was achieved through three main areas—module building and outfitting, design and economies of scale.[42] He explained that one important way to achieve efficiency is with module building and pre-outfitting—a practice all around the world. In his words:

> What you try to do is you take a slice of the ship, called a module, and you pre-outfit it with as much equipment as you can. This gives you access to both sides of the module, so you can fit it out. The world benchmark you are looking for is about 85 per cent pre fit-out or better. Clearly then the module size is set by the beam of the ship, pretty much. You could slip it again, but by having a module size the bigger the ship gets then the bigger the module gets. The second thing you want to do is you want to be able to turn the modules, invert them. The last thing you want to do is have welders or electricians doing a lot of fitting out work over the top of the head or overhead. What we do is we build the modules and then we turn them over so that the workers can work 'downhand', not overhead.[43]

6.31 He contrasted the AWD, which is in the order of an 18.3-metre beam, with the LHD at 32 metres and the AORs, which are likely to be 23 metres.[44]

Economies of scale

6.32 Mr King also argued that 'one-offs and two-offs do not make for anywhere near efficient shipbuilding'. As an example, he cited the ANZAC Ship Project, which was built out of Williamstown in Victoria. In his view, this project was 'probably the benchmark of economic performance in shipbuilding in Australia'. He referred to the learning curve effect for the ANZAC build, which was not achieved for the first few ships. But, according to Mr King, by the end of that program, 'we were building those ships in Australia cheaper than we could have bought them offshore'. In his view, the main thing was that the labour rate was not such a big factor and that there was no structural reason preventing Australia from being an efficient shipbuilder. He concluded, however, that Australia could not even 'be close to being an efficient shipbuilder' unless there was 'a genuine strategic approach' to building ships and which ships you are going to build. He stated:

> Simply doing one-off or two-off ships, particularly if they are very large and require a very high investment in infrastructure, which is unlikely to ever be used again—our demand for another big ship is probably 30 years away—would be highly questionable.[45]

---

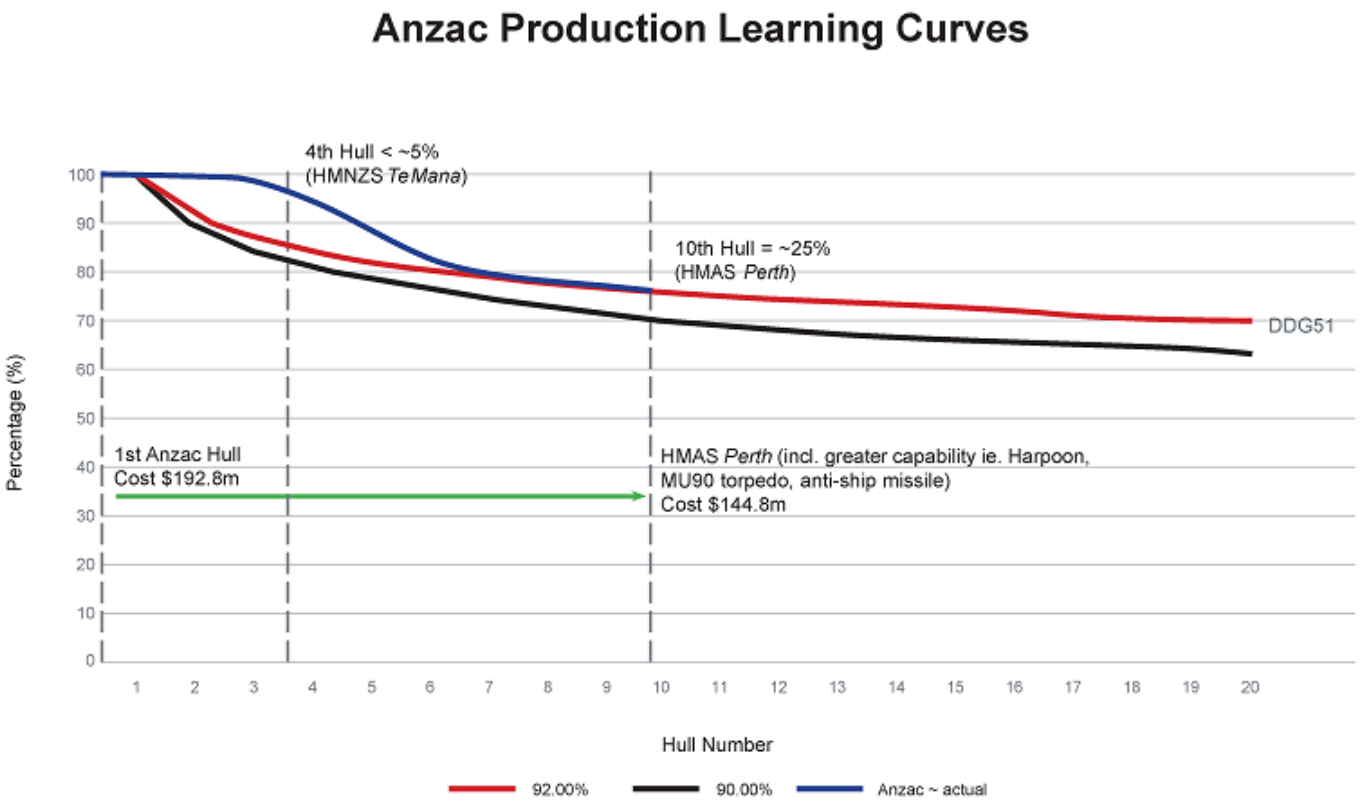
42 *Committee Hansard*, 21 July 2014, p. 14.

43 *Committee Hansard*, 21 July 2014, p. 14.

44 *Committee Hansard*, 21 July 2014, p. 14.

45 *Committee Hansard*, 21 July 2014, p. 14.

Figure 6.2: ANZAC Class Learning Curve productivity levels



The graph illustrates productivity improvement through continuing work on the same design. Experience with the ANZAC Class program shows that a short series of ships, like the two Auxiliary Oiler Replenishment ships, is not long enough to develop improvements in shipyard learning. An experienced naval shipyard with constant throughput of work would normally expect a learning curve of 90–94 per cent between first and second ship. It is important to note that, because of the peaks and troughs associated with naval shipbuilding in Australia, the ANZAC Class program did not achieve a corresponding learning curve effect until the fifth ship.[46]

46 Department of Defence, answer to question on notice No. 30.

6.33 Mr Thompson, AMWU, understood that there were productivity gains from building a number of ships. He noted Mr King's observations regarding the ANZAC frigate project, which by ship No. 6, was producing the vessels at world's best practice. A few of the workers engaged in the project told Mr Thompson that, in the end, they were 'building those ships with their eyes closed because of the continuity'.[47] The union accepted that, from a value for money perspective, building a new class of ship from an existing design in a new shipyard costs more than later ones.[48] In Mr Thompson's view, this fact reflected normal results in any manufacturing endeavour and that building the two supply ships in Australia would be no exception.[49] He argued, however, not to assume that the European shipyards do not face similar start-up costs. He again cited the limited experience with AORs:

> It has been a long time since the Spanish built the *Cantabria*, which was commissioned in 2010. The Korean ship is a new design. Steel for the first ship [for] the UK was only cut last month on 27 June.[50]

6.34 Mr Dunk also agreed with the proposition that if the supply ships were to be built in Australia then a two-ship build was not going to achieve economies of scale'.[51] He cited the ANAO report on the AWD, which basically indicated that after completing ship No. 4 then 'you are in the ballpark of competitiveness'. He stated however, that:

> I do not necessarily accept that parts of the ship could not have been built here for maybe some additional cost, that is to be seen, and maybe some slippage of the schedule, and that is to be seen as well.[52]

6.35 Mr Hamilton-Smith similarly appreciated the fact that a build-up of two ships might not produce economies of scale in contrast to producing a run of six such ships where there would be some benefits. Nonetheless, he sought to emphasise the point that Australia presently faces a particular issue, which is 'to cover the valley of death'—to keep the skilled workforce in place and Australian capabilities in position for what is to follow. In his opinion:

> The decision to fit these two ships offshore is going to hurt that capability.[53]

6.36 Mr Burns noted that recently the New Zealand Navy announced it was also going to replace its replenishment ship. In his view, the opportunity existed for

---

47 *Committee Hansard*, 21 July 2014, p. 35.

48 *Submission 4*, p. [4].

49 *Committee Hansard*, 21 July 2014, p. 34.

50 *Committee Hansard*, 21 July 2014, p. 34.

51 *Committee Hansard*, 21 July 2014, p. 43.

52 *Committee Hansard*, 21 July 2014, p. 43.

53 *Committee Hansard*, 21 July 2014, p. 51.

Australia to enter into a partnership with New Zealand to have a three-ship arrangement.[54]

Reputation of South Korean shipbuilders

6.37 As noted earlier, one of the tenderers is Daewoo Shipbuilding and Marine Engineering (DSME) of South Korea. It should be noted that in 2006 the Foreign Affairs, Defence and Trade Committee acknowledged that the South Korean shipyards were recognised and highly regarded for their efficiency in producing commercial tankers:

> Their business model is based on high-rate production and they have forward orders running for many years.[55]

6.38 At that time, Dr Stephen Gumley, then CEO, DMO, told the committee that the production capacity of the South Korean shipyards was 'just phenomenal'. Indeed, Lieutenant General David Hurley recalled a tour of those yards:

> …we…asked the Koreans if they would be interested in building a 20,000-tonne LHD, they looked down their noses because they 'don't build tugs'. It was just a size they do not consider…[56]

6.39 The reputation of the South Korean shipyards remains high for their productivity. Mr King referred to South Korea as the specialists in tankers—where in one yard alone, they are 'delivering a ship every nine days'.[57] He noted that AORs are similar to tankers and that even other countries with their own naval shipbuilding industry look overseas to acquire their large replenishment ships. He gave the following example:

> Norway, who is a specialist shipbuilder, a renowned shipbuilder, who produces offshore vessels all the time—probably the world's leading, certainly up there, offshore vessel builder—is buying its AOR from Korea. So there is a country with a well-established, renowned capability in shipbuilding that has chosen to buy its AOR from Korea.[58]

6.40 In respect of DSME, Defence informed the committee that it was one of the world's best and most prolific shipbuilders in the world, having the highest of reputations for tanker construction. It noted that DSME had 148 commercial and naval vessels currently on order worth a combined $US 44 billion and had built over 1,000 commercial and naval vessels, including more than 330 commercial tankers, to which

---

54 *Committee Hansard*, 21 July 2014, p. 45.

55 Mr Kim Gillis, Foreign Affairs, Defence and Trade Committee, *Committee Hansard*, 18 August 2006, p. 46.

56 Foreign Affairs, Defence and Trade Committee, *Committee Hansard*, 18 August 2006, p. 46.

57 *Committee Hansard*, 21 July 2014, p. 20.

58 *Committee Hansard*, 21 July 2014, p. 20.

the potential AOR Aegir 18A design is a variant.[59] Furthermore, as well as the Norwegians, DSME was currently in contract with the United Kingdom Ministry of Defence for the Royal Navy's MARS (Military Afloat Reach and Sustainability) Tanker.[60]

6.41 According to Defence, Navantia was a leading and 'a proven shipbuilder with experience with AOR design and construction, including the *Cantabria* in 2008 and the Navy's two new LHDs. The *Cantabria* deployed to Australia during 2013 and 'operated very successfully' with the RAN.[61] Furthermore, Defence noted that in recent years, Navantia had undertaken the construction of naval vessels for a number of different navies—those of Spain, Australia, Norway, India and Venezuela. It explained further that the Cantabria class design was 'a development of the earlier Auxiliary Oiler Replenishment (AOR) Patino commissioned in 1995, and was built using the same shipyard processes as the Spanish and Australian Landing Helicopter Dock (LHD) ships'. According to the DMO:

> The Spanish shipyards have long established suitable facilities and construction techniques, with shipyard familiarity extending established processes across other recent successful construction projects. The Spanish shipyards would use the same design teams, common building procedures and standards, and build strategy for potential Royal Australian Navy (RAN) AOR ships as undertaken for *Cantabria* and other recent programs.
>
> There would be no requirement to re-engineer the block size or other aspects of the design as would be required to undertake construction by local Australian industry (noting it has been independently recognised that such re-engineering effort negates any learning curve and productivity-related benefit).[62]

6.42 The Navy League of Australia, which strongly supported the notion of Australia maintaining shipbuilding capability, drew a parallel with the UK, which also had a similar need to sustain a naval shipbuilding program. It noted:

> As the aircraft carrier project draws to a conclusion the Type 26 frigate program assumes great importance in sustaining industry capability in the UK. Submarine capability is committed long term to the Astute class and the SSBN successor program. It is significant that the order for 4 Royal Fleet Auxiliary MARS 37,000 tonne fleet tankers was placed in Korea with Daewoo. They are being built to a British design by BMT Defence Services.[63]

---

59 Department of Defence, answer to question on notice No. 31.

60 Department of Defence, answer to question on notice No. 14.

61 Department of Defence, answer to question on notice No. 14.

62 Department of Defence, answer to question on notice No. 31.

63 *Submission 12*, p. [1].

BAC Cantabria blocks built by Navantia in Cadiz, Spain

Figure A: Typical block under construction in Spain (462 tonnes)[64]

Figure B: Aft superstructure block under construction in Spain. Australian construction of this block required it to be constructed and lifted as four separate blocks due to manufacturing and lifting capacity restrictions.[65]

64 Department of Defence, answer to question on notice No. 30.

65 Department of Defence, answer to question on notice No. 30.

6.43 The League also understood that Norway, as Mr King mentioned, was acquiring a similar but smaller ship from the same builder and had considered that their domestic shipyards would benefit more from building smaller, higher value, specialist vessels.[66] The League was of the view that there were cogent reasons for Australia placing orders for the two support ships overseas. It argued that the government's decision to call for a restricted tender for the construction of the two ships to replace HMAS *Success* and HMAS *Sirius* appeared essentially pragmatic—a decision which faced the reality of shipbuilding in Australia.[67]

6.44 The committee agrees that the productivity of some overseas shipyards such as those in South Korea, is impressive. Even so, submitters pointed to other considerations, such as broader economic benefits, through-life support and national security, that may well override considerations based on purely the cost and schedule of a build. For example, Mr Dunk supported the argument that factors other than the cheapest price need to be taken into account when acquiring a naval vessel. In his view:

> These factors can be broadly considered as the mitigation of strategic risk through the development of an industrial base that we need to have, the associated development of skills and expertise for the longevity and sustainment of that industrial base and the economic benefits of doing the work in country through factors such as increased employment, return to the government through taxation, innovation and potentially export.[68]

6.45 In the following section, the committee considers the economic benefits of having an Australian build including consideration of through-life costs.

Contribution to Australian economy

6.46 Naval shipbuilding makes an important contribution to the Australian economy. Mr Simon Kennedy, Adelaide Ship Construction International and Smart Fabrication, wrote of the positive returns on investment should the supply ships be built in Australia:

> Every dollar spent on a ship or submarine within Australia goes further than the initial transaction. Australian primes engage Australian manufacturers who engage Australian subcontractors. The training and development required to build the ships and submarines not only contributes to our local economy, but also our local knowledge and skills base.[69]

6.47 He argued that if the Navy's auxiliary supply ships were to be built overseas, the flow-on effects of each dollar spent would not be felt in Australia. He stated:

---

66 *Submission 12*, pp. [1–2].

67 *Submission 12*, p. [3].

68 *Committee Hansard*, 21 July 2014, p. 41.

69 Mr Simon Kennedy, Adelaide Ship Construction International and Smart Fabrication, *Submission 8*, p. 2.

> We would be investing billions of dollars in an overseas economy, in overseas communities, instead of our own. It would be detrimental to Australia's knowledge and skills base and akin to shooting ourselves in the foot.[70]

6.48 An ASC paper on Australia's shipbuilding industry also noted the advantages that flow through to the national economy from investment in the Australian naval industry—an advanced manufacturing, high value-add sector. The paper referred to studies on the economic effects of projects such as the ANZAC Frigate and the Coastal Mine Hunters projects showing that 'basic benefits to the national economy from in-country construction are nearly double the value of the investment'. Taken together with the flow-through effects of in-country construction, it argued that 'the human capital generated by large projects and innovation spill-overs from in-country design and development work, contribute substantially to the national economy'. It also referred to generating innovation and thus creating even greater spill-overs.[71]

6.49 According to the Australian Industry & Defence Network Inc, naval shipbuilding directly employs some 6,000 people and indirectly nearly 15,000 people. It stated further:

> The industry makes a contribution to the Australian economy of between (conservatively) $1.5 billion up to around $2.3 billion (based on total multipliers) per annum.
>
> Around 7,400 full time equivalent (FTE) jobs across Australia can be attributed to the production of naval vessels by the five largest prime contractors in the industry. In addition, up to 7,560 FTE jobs can be attributed to the activities associated with through life support of naval vessels.[72]

6.50 In the Network's view, more often than not the Defence Department's value for money (VFM) criteria only considers the short term acquisition costs and this drives procurement often to an overseas supplier. Furthermore, that 'a more holistic "Whole of Life" VFM criteria would ensure a more realistic appraisal of competing bids'.[73]

6.51 The ACIL Allen report to the Australian Industry Group, *Naval Shipbuilding Through Life Support*, produced the set of figures quoted above, including the potential $2.3 billion contribution from naval shipbuilding and through-life support to the economy. This report also noted other significant economic benefits—technology

---

70 Mr Simon Kennedy, Adelaide Ship Construction International and Smart Fabrication, *Submission 8*, p. 2.

71 An ASC paper, *A Sustainable Australian Naval Industry*, issue 1.0, pp. 15 and 19, https://www.asc.com.au/Documents/Speeches/A%20Sustainable%20Australian%20Naval%20Industry.pdf (accessed 7 August 2014).

72 *Submission 7*, p. 2.

73 *Submission 7*, p. 3.

transfer, transfer of expertise, and improved practices in areas such as quality assurance, business planning, sub-contracting and dealing with Defence.[74] It drew attention to the 'hidden but real, financial costs that are likely to arise if a decision is taken to source ships from overseas or between different approaches to Australian design, build and sustainment'. One of the key considerations was the possible additional costs to maintain the vessels throughout their service life.

6.52 It should be noted that in response to a question about the economic benefits that flow through the economy from government spending in Australia on naval acquisitions, Defence offered some qualification on the statistics provided to the committee. It advised that when assessing the economic impact of a project, three issues should be kept in mind. According to Defence, they were not mentioned in evidence and suggested the benefits of building the Navy's auxiliary supply ships in-country may have been overstated. Defence then explained the relevant issues:

- All Defence capital equipment projects must ultimately be paid for by Government by raising taxes or reductions in other areas across the public sector to maintain a balanced budget. Consequently, defence capital equipment can only be purchased at the cost of displacing or 'crowding out' other areas of activity elsewhere in the economy. This applies irrespective of whether the equipment is produced domestically or sourced from overseas.
- Many of the resources already used within Australia for the production of defence capital equipment, or earmarked for potential use, can eventually be deployed in other parts of the economy; possibly in more productive applications. If Australia is required to pay a substantial price premium to ensure that an item of defence capital equipment is produced in-country, it suggests that more productive uses for these resources are available over the longer term. Consequently, a price premium is normally only justified for the domestic build of equipment if the equipment has an especially high military-strategic value to the Australian Defence Force and overseas supply is impractical. The construction of an auxiliary supply ship in Australia does not satisfy either of these criteria. Moreover, any payment of a price premium will erode the purchasing power of the Defence budget and require that Defence reduces its expenditure on other military capabilities. A premium therefore has a direct opportunity cost.
- Although investing in the domestic build of an auxiliary supply ship will generate so-called multiplier or flow-on effects and may create so-called spill-overs by contributing to broader workforce skilling, it is not clear whether these effects are any higher than if the investment in the build had been re-directed and used for other purposes. That is, it is not clear that the multipliers

74 ACIL Allen Consulting, *Naval Shipbuilding & Through Life Support, Economic Value to Australia,* ACIL Allen report to Australian Industry Group, December 2013, p. ii.

> or spill-overs associated with building the ship are any greater than those associated with other types of economic activity.[75]

Through-life-support

6.53 When considering the costs of an acquisition, industry participants emphasised the need to take account of the through-life expenses which may be many times greater than the initial cost of acquisition. Indeed, the Foreign Affairs Defence and Trade Committee noted that as a rule of thumb applying to large constructions, including a typical warship, most estimates suggest 30 per cent in initial acquisition costs compared to 70 per cent through-life support costs.[76] Likewise, Mr Fletcher noted the significant through-life support costs as compared to the purchase cost:

> …one of the challenges before our nation is for the Defence department to seriously look at whole-of-life-cycle costing when making procurement decisions, because generally whole-of-life-cycle sustainment cost is up to two, three or four times the procurement cost, so you get a very different answer if you model whole-of-life-cycle costing versus the initial procurement.[77]

6.54 Mr Fletcher also stressed the point that the initial penalty for upfront procurement in Australia would be defrayed, if the 'whole-of-life-cycle costs and the information, knowledge and skills base is preserved and maintained for future upgrades and sustainment of those vessel'.[78] Likewise, Mr Hamilton-Smith argued that the decision to build off-shore 'will cost the Commonwealth government far more through the full life cycle than any possible savings made in the initial procurement'.[79]

6.55 The committee has already noted that investment in infrastructure may have long-term benefits for the costs in maintaining and upgrading vessels: that by constructing vessels in Australia, the economic costs of maintaining, repairing and refitting large naval vessels throughout their operational lives could be reduced. Thus the savings generated by having the infrastructure available for the maintenance and upgrade of the Navy's fleet should be a major consideration.[80] But the argument about through-life support also extends to the know-how and the skills base needed to sustain and upgrade the fleet. In other words, if Australia is to maintain and modernise its naval vessels, it needs an experienced, knowledgeable and productive

---

75 Department of Defence, answer to question on notice No. 19.

76 Foreign Affairs, Defence and Trade Committee, *Blue Water Ship: consolidating past achievements*, December 2006, paragraph 10.1.

77 *Committee Hansard*, 21 July 2014, p. 51.

78 *Committee Hansard*, 21 July 2014, p. 52.

79 *Committee Hansard*, 21 July 2014, p. 47.

80 For a more detailed discussion on through-life support of Naval ships see Foreign Affairs, Defence and Trade Committee, *Blue Water Ships: consolidating past achievements*, pp.126–155.

workforce to repair and service these vessels throughout their operational life. Some suggest further that naval ships should be built in Australia so that the country will acquire the knowledge and experience necessary to maintain, repair and upgrade its vessels.

Conclusion

6.56 There is no denying that the AWD project has run into trouble and that productivity is a problem. As the work on the second and third AWD vessels progresses and the skills base and experience continues to develop, the committee understands that further productivity gains could be anticipated. The committee accepts, however, that the benefits that derive from economies of scale cannot be expected with the two-off build of the replenishment ships. Furthermore, the committee is aware that some overseas shipbuilders, notably the South Korean shipyards, have an impressive and proven track record in producing large tanker-like vessels cost-effectively and without delays.

6.57 Even so, the committee notes that cost and schedule are not the only factors that should be taken into account when considering the procurement of a major naval acquisition. The committee has looked at the much broader economic benefits that accrue from a local build or Australian involvement in the production of a naval vessel. They include the development of a highly skilled workforce, employment, the growth that comes through research and development, knowledge transfer and the benefits that innovation bring to the wider economy. The committee also understands the importance of having the skills base, experience and local know-how necessary to support the vessel throughout its operational life. This self-reliance is central to national security and is discussed further in the following chapter.

Chapter 7

National security

7.1 A number of submitters accepted the argument that the naval shipbuilding and repair industry is not simply about costs, broader economic benefits or local jobs—it is about national security.[1] In this chapter, the committee considers the decision to conduct a limited tender for the two supply ships in light of the argument that an indigenous shipbuilding industry is required for national security reasons.

Strategic imperative

7.2 There are many and significant benefits that accrue from the construction of naval ships in Australia, including: the establishment and further development of a strong industrial base supported by a skilled workforce; expanded indigenous research and development, design, production and management capabilities; and extensive technology transfer across a broad spectrum of activities. There are also savings to be considered that may derive from being better able to support the vessels throughout their operational life. But shipbuilding is not purely an economic, research and development or job creation activity, it is above all a Defence activity with national security its foremost concern. Thus, when considering a major naval acquisition, Defence's primary concern, within a limited budget, is with maximising its capability and the continuing support needs of the naval fleet.

7.3 To fulfil its primary role to protect the national interest, Defence must ensure that it has control over the capability and technology needed to secure operational independence in areas vital to Australia's defence. For Navy, it means that its fleet must be equipped to best meet the security challenges it confronts. Many argue that to do so, Australia needs an indigenous shipbuilding industry and a domestic capability to support Australia's naval ships and their systems throughout their working lives.

7.4 Indeed, the Australian Business Defence Industry stated succinctly that the strategic requirement for the repair and maintenance of naval ships would appear to be 'a given'.[2] Mr Dunk similarly recognised the importance of a shipbuilding industry to Australia's national interest. In his words:

> There can be no doubting that the ability to maintain ships is a strategic requirement and it may well be…that with a shrinking overseas shipbuilding capability there is a strategic requirement to build ships here

1 See for example, AMWU, *Submission 4*, p. [1] and Defence Teaming Centre, *Submission 10*, p. 4.

2 *Submission 2*, p. [1].

> but that work has not been done and has not been unambiguously stated as such.[3]

7.5 The AMWU stated that naval shipbuilding, including both construction and repair, was about:

> …having the sovereign industry necessary to keep the Australian Navy operating every day at sea; having an industry with the ability to conduct expert maintenance and repair on complex warships; and an industry with the ability to build new warships that meet the specific requirements of the Australian Navy. Our industry is critical to Navy's operations in support of peacetime activities like humanitarian assistance and disaster relief, as well as high–end warfare operations.[4]

7.6 Thus, the union argued that the capability of Australia's naval shipbuilding industry was 'foremost a national security issue as well as being an issue for our economy and our manufacturing industry'.[5] In this regard, the Government of Victoria sought to impress on the committee the importance of taking account of the whole life cycle of the supply vessels and of the need to sustain that capability. In its view, a local shipbuilding industry capable of maintaining and modifying these vessels throughout their lifecycle would be critical to Navy's capacity to operate and support this expanded capability. The Victorian Government informed the committee that Victoria was home to one of the region's most advanced shipbuilding dockyards in BAE Systems at Williamstown. It referred to its substantial contribution to the LHD program and its work in supplying blocks for the AWD program. According to the Victorian Government:

> The Williamstown shipyard has been one of the cornerstones of maintaining, developing and building Australia's shipbuilding capability with the ANZAC Class Frigates a prime example of their capability. This capability will not be available in the future unless companies such as BAE are afforded the opportunity to participate in major defence projects.[6]

7.7 Mr Hamilton-Smith argued that the current thinking about purchasing the supply vessels offshore was unsound. He argued that unless you maintain, sustain, mid-cycle dock and keep that capability in the water—and if you have not built it your ability to do that is diminished—then you do not have a war-fighting capability. To his mind, the argument that you can save money up-front by bidding off your projects overseas, which satisfies a Navy and ADF need and then forget about the acquisition, was flawed.[7] Indeed, he informed the committee that:

---

3 *Committee Hansard*, 21 July 2014, p. 44.

4 *Submission 4*, p. [1].

5 *Submission 4*, p. [1].

6 *Submission 13*, p. 2.

7 *Committee Hansard*, 21 July 2014, p. 52.

> …the decision to restrict the tender to build these two supply ships to companies outside Australia, in the South Australian government's view, is detrimental to the future of naval shipbuilding in Australia. It is a consequence of the longstanding and, in our view, short-sighted project by project mindset to naval shipbuilding in this country to date.[8]

7.8 In his view, over the next 12 to 18 months and before the next White Paper, the government must devise the right strategy, policy and investment decisions. Otherwise, in his words, it will cost Australian taxpayers more money over the future life of the projects; be at the expense of Australian jobs; and throw away investment in skills. According to Mr Hamilton-Smith:

> Most importantly, it may irreparably damage our capability to defend ourselves as a nation in the Asian region.[9]

7.9 The Navy League of Australia argued that, as far as practicable, the ships that the Navy needs should be built in Australia, particularly warships and submarines. It noted that:

> By doing so we will maximize the long-term benefits of developing the industrial capability essential for the long-term support and modification in service of such vessels. We will maintain independence in the support of our naval assets.[10]

7.10 The League accepted that, apart from the organisations currently engaged in naval programs, Australia no longer had a significant shipbuilding industry. Even so, it contended that Australia should sustain the capability of the current participants in Australian naval shipbuilding in order to 'maintain the strategic industry capability they provide'.[11] The League argued that the key to maintaining this capability was:

> …continuity of orders and a concentration on building those ships most relevant to this aim, warships and submarines. In maintaining this capability we may have to pay a premium, although this is not necessarily so if the programs are of sufficient size to allow Australian industry to benefit from continuous production. The ANZAC frigate program of 10 ships, 8 for the RAN, 2 for the RNZN, is a good example.[12]

7.11 Mr King did not subscribe to the argument that Australia needed to build the ships to be able to maintain and repair them effectively throughout their service life. He indicated that Navy has had ships from overseas all of its life and Australia has supported them. Indeed, Defence told the committee that ships are 'generally

---

8 *Committee Hansard*, 21 July 2014, p. 47.

9 *Committee Hansard*, 21 July 2014, p. 48.

10 *Submission 12*, p. [1].

11 *Submission 12*, p. [1].

12 *Submission 12*, p. [1].

sustained by different companies and at different sites'.[13] Mr King gave the example of the F111s, 'one of the most expensive, exotic aircraft of their day':

> They were fully maintained by Australian industry right up to the finish and very effectively. Super Hornets, Hornets, JSFs will all be built overseas and I can assure you we will support them very effectively in Australia. What is important is that you have the intellectual property in order to be able to make changes and to modify them through life—that is very important. We have six FFGs. The first four of those were bought straight from America.[14]

7.12 It should be noted that at the time of considering the acquisition of the LHD, Defence maintained that the case for a domestic build was not as strong for these large ships as for the AWDs: that a local build for the LHDs was likely to produce relatively few savings for through-life support. In particular, Defence suggested that the LHD platform would not require the high-end skills that are critical for the industry to retain. In its view, the skills used during platform construction are 'less important in the through life support phase of ships'.[15] Consequently, although Defence agreed that there was 'some crossover between shipbuilding and ship sustainment and repair', it suggested, as Mr King had already made clear, that it was not necessary to have built the ship to sustain it. According to Defence, it was more important to ship sustainment to have access to ship design experience and the required technical data.[16]

7.13 Mr King explained further, that while he did not believe that the maintenance argument was very sound, he saw the need for Australia to have a strategic capacity to support its naval fleet. Thus, whereas Mr King rejected the notion that Australia could only maintain its ships if it had built them, he did contend that Australia should have a shipbuilding industry and in this context he stated his strong support for the surface combatant shipbuilding industry.

7.14 According to Mr King, it was important to remember that the decision to tender for the supply ships was one of a number of decisions including the one to pursue the feasibility of building future frigates in Australia. In his view, this decision was critical to having a vibrant and effective shipbuilding industry. In respect of surface combatants, he said:

> …you need lots of competent supervisors and management levels. The world capacity that we can access to buy surface combatants is diminishing quickly. American shipyards, UK shipyards, European shipyards are diminishing quickly…Ships take five or six years to build. It strikes me as a good, strategic insurance policy that we have the ability, should pressures outside grow for us to need an expanded navy, that we have a fundamental

---

13 Department of Defence, answer to question on notice No. 17.

14 *Committee Hansard*, 21 July 2014, p. 30.

15 Foreign Affairs, Defence and Trade Committee, *Blue Water Ships: consolidating past achievements*, December 2006, paragraph 7.90.

16 Department of Defence, answer to question on notice No. 17.

> capacity to be able to build those ships. Because one thing we know for sure is that if there were suddenly a demand for another 20 or 30 surface combatants from our friends and allies in the markets that we could go to, we would not be seeing one for eight or 10 years.[17]

7.15 The Navy League of Australia noted that in view of the commitment of ASC and the Techport to the AWD program 'the priority there should be to ensure the success of that program and to prepare for the construction of the future frigate and future submarine, bringing forward the frigate program if necessary'. In its view, it was already 'too late to prevent a run-down of capability at the major AWD sub-contractors Forgacs in Newcastle and BAE Systems in Melbourne'.[18]

Conclusion

7.16 National security concerns are central to any consideration about Australia having a naval shipbuilding industry and the priorities that should be given to developing and retaining the skill base and experience to support that industry. The committee has referred to the important capability that the supply ships provide to Australia's naval fleet. But, as Mr King explained, Australia does not need to build the supply ships in-country in order to maintain and upgrade them throughout their life. He did recognise more broadly, however, the need for Australia to have an indigenous industry that has the strategic capacity to support the Navy's fleet.

7.17 In the following chapter, the committee looks at Australia's Defence industry policy and how the government's decision to restrict the tender for the supply ships was consistent with its policy objectives.

17 *Committee Hansard*, 21 July 2014, p. 30.

18 *Submission 12*, pp. [2–3].

Chapter 8

Australian industry involvement

8.1 Defence recently released its *Defence Issues Paper 2014* in which it recognised its reliance on Defence industry 'to supply and maintain the equipment required for military operations', which, it reasoned, 'necessitates a robust in-country industrial base'.[1] The paper also noted the present day pressures on the industry and the need for government to make decisions about supporting this industry and setting priorities within budgetary constraints. With regard to the maritime sector, it stated clearly that the government wanted to see shipbuilding continue in Australia, but not at any cost. In this chapter, the committee looks at the government's decision to undertake a limited tender for the supply ships and its implications for Australia's local shipbuilding industry.

Australia's Defence industry policy

8.2 In 2010, Defence released a new defence industry policy for a 'smarter and more agile Defence industry base'. It recognised the vital contribution that the industry makes to Australia's defence and security. The policy statement had four key elements whereby the government:

- sets clear priorities that encourage investment;
- commits to establish a stronger relationship between Defence and industry;
- seeks to increase opportunities for Australia's defence industry to identify and make the most of business opportunities within Australia and overseas; and
- places a high priority on removing barriers to the growth of local firms by giving Australian companies the opportunity to compete for, and win, work in Australia and global procurement programs based on their merits.[2]

8.3 The policy also made clear that Defence had expectations of defence industry which, it stated, 'must become more resilient and self-reliant if it is to prosper and grow in the future'.[3] The 2013 White Paper similarly recognised the importance of Australia having a skilled, efficient and competitive industry to support Defence and that the industry needed backing in order to develop the skills required. It stated:

> While building new skills within the maritime sector is important, it is equally important to maintain the skill level of the existing maritime

---

1 Department of Defence, *Defence Issues Paper 2014*, a discussion paper to inform the 2015 Defence White Paper, p. 23.

2 Department of Defence, *Building Defence Capability: A Policy for a Smarter and More Agile Defence Industry Base*, 2010, pp. 7–8.

3 Department of Defence, *Building Defence Capability: A Policy for a Smarter and More Agile Defence Industry Base*, 2010, p. 9.

> workforce. The Government is committed to a program of naval shipbuilding that will ensure that the skills developed during construction of the Air Warfare Destroyers and Landing Helicopter Dock ships will be available to be applied to the Future Submarine Program and Defence's broader long-term needs. To do otherwise would result in a later delivery of the future submarines at a higher cost than is necessary, thereby resulting in a loss of capability for the ADF.[4]

8.4 In 2013, before being elected to government, the Coalition gave its commitment to supporting local defence industry:

> Consistent with getting best value for the taxpayer, and effective and sustainable capability for the ADF, a Coalition government intends that the ADF be equipped by Australian-made goods wherever possible.[5]

8.5 The Coalition's intention was not to implement any local content requirements but to make clear that Australian businesses 'should be given every opportunity to compete for Defence contracts'.[6] In its policy statement on Defence, the Coalition indicated that it would work with the Australian defence industry 'to avoid production troughs by co-operating closely with companies, big and small, to provide consistency, continuity and a long-term focus to the purchase and sustainment of defence capabilities'.[7]

Industry's interpretation of the decision to tender for the supply ships

8.6 Some in the defence industry, however, interpreted the decision to conduct a limited tender for the supply ships as a slight to local shipyards. Mr Andrew Fletcher informed the committee that the South Australian state government was not consulted prior to the announcement to tender for the replenishment vessels.[8]

8.7 Similarly, Mr Hamilton-Smith informed the committee that the decision was unexpected. He explained that the South Australian government was aware of the argument that the supply ships, by their nature, were less complex than submarines and air warfare destroyers and that an overseas build could be put forward. According to Mr Hamilton-Smith, the South Australian government believed that industry based in the state could take carriage of the project, but just 'needed to have notice and get

---

4 Department of Defence, *Defence White Paper 2013*, paragraph 12.54, http://www.defence.gov.au/whitepaper2013/docs/WP_2013_web.pdf (accessed 8 August 2014).

5 *The Coalition's Policy for Stronger Defence*, September 2013, p. 7, http://www.liberal.org.au/our-policies (accessed 8 August 2014).

6 *The Coalition's Policy for Stronger Defence*, September 2013, p. 7, http://www.liberal.org.au/our-policies.

7 *The Coalition's Policy for Stronger Defence*, September 2013, p. 7, http://www.liberal.org.au/our-policies.

8 *Committee Hansard*, 21 July 2014, p. 50.

on with the job'. They were 'surprised and disappointed by this decision, suggesting that 'Australian and South Australian workers and businesses are poorer off for it'.[9]

8.8 Mr Burns, ABDI, spoke of an industry that wanted to be recognised and respected for its significant role in the development and delivery of ADF 'military capability and the preservation of the nation's sovereignty'. He referred to an industry that was looking for:

> …the opportunity to compete under the construct of holistic whole-of-life benefit to the nation and on a level playing field, where the lowest price is not the determinant of value for money; an industry that would rather collaborate and partner with government and Defence than be subjected to orchestrated campaigns to discredit it in order to justify going offshore to acquire low-risk hardware at the cheapest price.[10]

8.9 In his view, successive governments over the last few years have 'left the industry confused'. He suggested that it was an industry that truly questions whether the Australian government or the department wants 'a defence industry at all'. If Defence wants a viable industry then, according to Mr Burns, it 'needs to support and partner with it, to collaborate and deliver military capability'.[11] He told the committee that industry was 'extremely disappointed about being excluded'.[12]

8.10 Mr Dunk, Australian Business Defence Industry, also registered industry's concern with the decision. He indicated that the ABDI concurred with the government's stated position that 'defence is not a job creation program'. He also agreed that there could be no doubting that 'the government and the Australian people expect that the tenders will provide value for money'.[13] In his view, local industry must be 'considered in defence decisions as having value and not just treated as a disposable commodity'. He noted:

> Industry capability is easy to dispose of or put into terminal decline but extremely difficult to redevelop should it be required. A more mature way of thinking about the industrial capabilities needed in country and developing, sustaining and supporting them is therefore required. The development of a transparent framework through which these very factors can be considered and the treatment of industry as a fundamental input to capability is required.[14]

8.11 To Mr Dunk's mind, the situation with the Navy replenishment ships was basically a manifestation of the failure of government to appreciate the value and

---

9 *Committee Hansard*, 21 July 2014, p. 50.

10 *Committee Hansard*, 21 July 2014, pp. 40–41.

11 *Committee Hansard*, 21 July 2014, p. 41.

12 *Committee Hansard*, 21 July 2014, p. 41.

13 *Committee Hansard*, 21 July 2014, p. 41.

14 *Committee Hansard*, 21 July 2014, p. 40.

contribution of Australia's defence industry. He suggested that the decision taken on the supply ship was a continuation of the 'repeated inaction on the part of successive governments and the department to a problem that has been well known for an extended time'.[15]

8.12 In chapter 6, the committee referred to the need to develop the necessary skills base and know-how to support naval vessels throughout their operational life. This requirement was seen as necessary for security reasons. In the following section, the committee's focus is on retaining these skills.

Valley of death

8.13 There have been a number of people who refer to the potential demise of Australia's naval shipbuilding. For example, the AMWU stated in a recent paper that the naval shipbuilding workforce was facing a 'valley of death'. It noted that current project work ends in three shipyards in 2015: BAE in Melbourne, Forgacs in Newcastle and Austal in Perth'.[16]

8.14 The Australian Industry & Defence Network Inc referred to concerns raised by industry representatives about the considerable loss of skills, talent and industrial capability. It noted further in 'some extreme instances the period of low demand may force the closure of infrastructure and facilities supporting the industry'.[17] In this regard, Mr Burns argued that if the supply vessels and the frigates, are not built in Australia the industry will dissipate:

> The problem is that in the future you will want to build submarines. You will not be able to take the workforce that maintains the Collins over to build future submarines because the Collins submarines are going to be going for many, many years to come. That workforce will be stressed as it is just keeping the Collins going. You have to build another workforce to build future submarines. If you have lost your shipbuilding capabilities, particularly the management of shipbuilding, you are going to be presented with the situation yet again where you have to build a workforce from scratch that will cost hundreds and hundreds of billions of dollars.[18]

8.15 The Government of Victoria acknowledged that while restricting the tender to Spanish and South Korean shipbuilders sent 'a positive signal to these countries on our ongoing engagement with them, the potential negative impact on Australia's local shipbuilding capacities is deep and long-term'. In its view, the Commonwealth

---

15 *Committee Hansard*, 21 July 2014, p. 41.

16 AMWU, *Australian Naval Shipbuilding*: *Design, Build & Maintain our ships here*, November 2013, p. 4 and Figure 1, p. 15, http://www.amwu.org.au/content/upload/files/Ships_Campaign_13/AA_AUST_NAVAL_SHIP BUILDING.pdf (accessed 16 July 2014).

17 *Submission 7*, p. 4.

18 *Committee Hansard*, 21 July 2014, p. 46.

Government has 'an ongoing responsibility to address the potential "valley of death" for Australian shipbuilding that such a decision contributes to'.[19] It highlighted the fact that the Victorian shipbuilding industry had demonstrated its skills and capabilities in design, engineering, fabrication and maintenance of naval vessels over many years, which in turn had brought 'substantial benefits to Defence and the national and state economies'. The Victorian Government noted the need for a commitment to a continuous investment program and continuity of projects in order for Victoria's shipbuilding industry to remain viable. It stated:

> For several years the naval shipbuilding industry has been warning the Commonwealth Government (both the current and the previous government) of the pending 'valley of death' in which there is a substantial gap between completion of current naval shipbuilding projects and commencement of major new projects. One impact of this scenario, should it come to fruition, will be substantial job losses. In Victoria the impact on our major naval shipbuilder, BAE Systems, would be the loss of up to 1,000 jobs at the company's Williamstown facility.[20]

8.16 The *Future Submarine Industry Skills Plan* referred to international examples of where the erosion of skills between projects resulted in 'some very significant cost overruns on subsequent naval projects'. It then cited the recent Australian experience with the AWD and LHD programs and the detriment to the AWD project from having a 'cold start'.[21] It found:

> The problems seen with the current shipbuilding projects in the last few years are the most direct result of having to rebuild Australian shipbuilding given its decline after the ANZAC and Collins projects…shipbuilding projects that start up after any such decline cost more: facilities have to be built or upgraded, and workers have to be recruited and trained. This also leads to schedule delays, cost over-runs, low productivity and issues with production that would have been avoided by an experienced workforce.[22]

8.17 The Plan suggested that the best way to maintain experience levels was to employ people in a continuing shipbuilding project. It noted especially the importance of retaining a good number of genuinely experienced shipbuilders at the core of a project.[23]

---

19 *Submission 13*, p. 2.

20 *Submission 13*, p. 2.

21 Department of Defence, *Future Submarine Industry Skills Plan*, March 2013, pp. 31 and 98.

22 Department of Defence, *Future Submarine Industry Skills Plan*, March 2013, p. 123.

23 Department of Defence, *Future Submarine Industry Skills Plan*, March 2013, p. 31.

Maintaining the skills

8.18 Mr Burns highlighted that management was the critical element and maintaining these skills through shipbuilding was a 'very, very important component that Australia would lose if not building ships'.[24] He stated:

> …it is more about the management skills above the blue collar skills. If you are building ships of any kind, to any level, you are practising those skills and you are keeping that workforce constantly improving and being more and more productive. At the moment, we are looking at a gap in that workforce and so those skills and management capabilities are going to be lost. That is the principle behind continuity of shipbuilding. It is not focused on specific projects.[25]

8.19 Mr Hamilton-Smith argued that Commonwealth governments, as the single customer, need to realise that if they provide continuity of shipbuilding, then industry would respond. He stated:

> But if we build the factory, hire the workforce, do a run of ships, close the factory down, sack the workforce and then come back 10 years later to do it over again it simply will not work. It is wrong to blame industry for what is essentially an organisational problem where government and industry need to work more closely together to build a capability that is sustainable.[26]

8.20 Mr Thompson, AMWU, recognised that since its inception, the industry has been subjected to peaks and troughs. He explained that people who work on design through to production take time to develop their expertise—'you cannot turn the tap on and off in finding the skills to be able to acquit this work'. [27] He took the committee back to before the AWDs when a 'greenfield industry' rose from the ashes.[28] In his words, 'you have to work to build capacity':

> The South Australian government built a shipyard for these three ships. We had no workforce when this project was won. We have built a capacity, and I think it says in the submarines Defence Capability Plan that it has cost government and industry in excess of $100 million to reskill the workforce. I am aware that BAE in Melbourne has built a new welding centre for the purposes of training apprentices and upskilling existing welders in the industry. A really important point in Mr King's submission to this inquiry was that, up until ship No. 6, the ANZAC frigate project was in the same position. What we are saying here is that the government should have allowed the local builders to tender for the supply ships to address the interims and the fall-offs, particularly in Newcastle in Victoria, to address

---

24 *Committee Hansard*, 21 July 2014, p. 44.

25 *Committee Hansard*, 21 July 2014, p. 45.

26 *Committee Hansard*, 21 July 2014, p. 48.

27 *Committee Hansard*, 21 July 2014, p. 35.

28 *Committee Hansard*, 21 July 2014, p. 36.

> and maintain their workforce to be in a position to deal with all the other naval requirements that are needed.[29]

8.21 According to Mr Thompson, Australia cannot afford to lose those skills and repeated the warning that navy shipbuilding was 'facing serious gaps in work', and that 'if we do not have continuity of work, we do not have capacity'.[30] He informed the committee there were around 7,000 jobs in the industry and as a result of the AWD project the workforce had built up to 3,800 on that particular project.[31] He noted that work on the destroyer comes to an end in Newcastle and in Melbourne in 2015 and finishes in 2016 with the capacity of a number of shipbuilding yards already in decline. In his opinion there was capacity in the BAE Victorian facility and in block construction at Forgacs at Tomago.[32] He explained:

> We have just recently had 110 skilled jobs come out of the Newcastle Tomago yard. Work on the destroyer will end in Adelaide in around 2019-2020 but will taper off dramatically in the years before. Work on the amphibious ship comes to an end in Melbourne in 2016 and production work on the future submarines will not seriously start until the mid-2020s. But we do not have any details yet about that scheduling. Also we have not seen the new scheduling in relation to the ANZAC frigate replacement. We obviously welcome comments from Mr King in relation to the need for a rolling build on that project. If this were to be brought forward, it would not seriously start production until the 2020s.
>
> All of that leaves a gap for several years, especially for the production workers who operate in this industry. The gap in Melbourne and Newcastle is from 2016 to 2022 and possibly longer. In Adelaide it will be from 2018 to 2022.[33]

8.22 In his view, this void could prove 'fatal' and, while acknowledging that the project to replace the supply ships was very late, the replenishment vessels could be built in Australia.[34] He argued that if Australia does not build its naval vessels then it does not build the capacity and the country 'will not be able to retain the capacity to build all our other naval requirements'.[35] He again highlighted the potential loss of jobs and skills:

---

29 *Committee Hansard*, 21 July 2014, p. 36.

30 *Committee Hansard*, 21 July 2014, pp. 33 and 35.

31 *Committee Hansard*, 21 July 2014, p. 34.

32 *Committee Hansard*, 21 July 2014, p. 35.

33 *Committee Hansard*, 21 July 2014, p. 33.

34 *Committee Hansard*, 21 July 2014, p. 33.

35 *Committee Hansard*, 21 July 2014, p. 36.

> We have got 3,800 jobs at risk as a result of a 'valley of death', an issue around some long-term thinking so that we do not have the peaks and troughs.[36]

8.23 Mr Thompson referred to the decision to have an open tender process in Australia for the patrol boats, which the AMWU welcomed. He argued, however, that the skills and capacity that would be maintained by those patrol boats would diminish the industry's capacity, because 'they do not have the technology and skills that are required to keep a highly skilled workforce'.[37] He believed that an open tender for the supply ships would test the union's contention:

> Our whole argument here is that our members and the companies that they work for—and the tender is not drawn yet—have not had the opportunity to tender for this work.[38]

8.24 Mr Hamilton-Smith suggested that the decision about the supply ships 'sends the wrong message'. He indicated that the South Australian government appreciated the pressure the Commonwealth was under, but that the current productivity issues were 'a symptom of previous short-sighted decision-making from successive governments going back decades'. He argued:

> We must avoid the same cycle recurring. Advanced manufacturing depends on naval shipbuilding and defence as a technology leader.[39]

8.25 Mr King acknowledged that since Federation, shipbuilding in Australia had been a stop-start proposition: that there had never been a proper strategic approach to military shipbuilding.[40] He referred back to a period when Australia had not built a ship more than around 2½ thousand to 3,000 tonne destroyer escort for at least ten years. He explained:

> We were buying ships FMS [foreign military sales] from America, from anywhere, and we were doing the odd ship in Australia very unsuccessfully in government owned yards. We then privatised the yard in Williamstown and it, through having a continuous build program, could demonstrate that even with our labour rates and everything else, we could have world-competitive shipbuilding industry. If we go all over the shop, higgledy-piggledy picking it because it has got the word 'ship' in it, it is likely to be deleterious compared to focusing on what is a real strategic opportunity.[41]

---

36 Committee Hansard, 21 July 2014, p. 38.

37 *Committee Hansard*, 21 July 2014, p. 38.

38 *Committee Hansard*, 21 July 2014, p. 38.

39 *Committee Hansard*, 21 July 2014, p. 47.

40 *Committee Hansard*, 21 July 2014, p. 16.

41 *Committee Hansard*, 21 July 2014, p. 29.

8.26 He explained that more recently and without thinking ahead, Australia got into a situation where Defence needed to get LHDs and replace AWDs at the same time. He then explained:

> So the peak workforce that we created by having those concurrencies in Australia was probably…larger, as far as I am aware, than we have ever seen in shipbuilding since the Second World War. So we created this peak for that period. [42]

8.27 In his opinion, there was always going to be a reduction in workforce—not a valley of death. He argued the need for a strategic approach to Australia's shipbuilding industry and believed there was now the opportunity to have such an approach, although Defence and industry would have to lift their performance.[43] He explained that currently there were three prospects:

- rebaselining the AWD and re-establishing it so that we have a deliverable three ships;
- a feasibility study hopefully convincing the government—industry and Defence—that we can produce viable surface combatant shipbuilding; and
- the Pacific patrol boat build for Australia.[44]

Notably, the supply ships did not figure in these proposals.

8.28 While some argued strongly in favour of a hybrid build in Australia for the supply ships to bridge the potential trough in activity, Mr King rejected the notion that such a proposal would provide the continuity that industry was seeking. In his assessment, continuity was not at issue because you are welding a metre of weld—continuity applies by building the same ship many times.[45] He contended:

> …building remotely and a totally different ship does not give you continuity. Where you get continuity is building the same type of module over and over again.[46]

8.29 Mr King noted the difference between building an AOR and an air warfare destroyer or a frigate, suggesting that although the latter are smaller ships, they are 'very, very complex and they bring into play all the skills that you need in a complex industry'. He explained:

> They bring into play engineering, communications, combat systems, radars. So what you find is, on an air warfare destroyer, for example, more than half of the value can be in electronics, engineering, project management and

42 *Committee Hansard*, 21 July 2014, p. 32.

43 *Committee Hansard*, 21 July 2014, p. 16.

44 *Committee Hansard*, 21 July 2014, p. 32.

45 *Committee Hansard*, 21 July 2014, p. 23.

46 *Committee Hansard*, 21 July 2014, p. 23.

> all those really skilled things. So, if you really want a balanced, skilled industry, frigates, surface combatants, is where you bring in all the skills and the continuity.[47]

8.30 In Mr King's mind, although the AORs are very large ships and relatively complex in terms of what they carry, they are not complex in terms of weapons systems, missile systems and things like that'.[48] In this context, Defence explained that AORs were 'to be based on existing designs with minimal modifications to meet the Navy's requirements, environmental obligations and statutory requirements'.[49] It stated:

> The primary interoperability considerations are the compatibility of the replenishment equipment (ie the ability of the new ship to replenish existing and future warships) and the ability of the new ships to integrate with RAN and Allied ships on exercises and operations. DMO noted that the 'replenishment equipment is governed by NATO standards, which Australia uses, that will stipulate requirements for the new Auxiliary Oiler Replenishment ships'.[50]

8.31 It should be noted that Mr Burns looked at the acquisition of the supply ships from a different perspective. He noted that the replenishment ships undertake complex operations as they carry a lot of fuel which they deliver at sea to up to three ships, requiring a number of systems to do it in all-weather states. Furthermore:

> A replenishment ship operates two helicopters—it is a mini airport by day and by night. It has to operate in a hostile environment, so it needs all the command and control capacity to protect itself and have communications including not just unencrypted but encrypted communications. There is a lot of opportunity for what we are good at in the industry, to put those sorts of systems on board a hull.[51]

8.32 In addition, the Victorian Government pointed out the particular requirements of the new replenishments ships, which will require:

- adaption to Australia's specific operational, strategic, and geographical environments; and
- some unique Australia systems (such as combat and communication systems) that will need to be integrated with the new replenishment ship platform and be compatible with the rest of the Royal Australian Navy Fleet.[52]

---

47 *Committee Hansard*, 21 July 2014, p. 20.

48 *Committee Hansard*, 21 July 2014, p. 12.

49 Department of Defence, answer to question on notice Nos. 24 and 26.

50 Department of Defence, answer to question on notice Nos. 24 and 26.

51 *Committee Hansard*, 21 July 2014, p. 44.

52 *Submission 13*, p. 3.

8.33 In both these areas, the Victorian Government noted BAE's significant experience due to their role as the prime contractor for the construction of the LHDs; their lead role in overseeing the Class Frigate Anti-Ship Missile Defence Upgrade program; and in systems integration activities. Also, according to the Victorian Government, BAE's intimate knowledge of other in-service Australian platforms gives the company a distinct advantage in achieving necessary platform commonality'. The Victorian Government suggested that, even if the ships were constructed in Spain or South Korea, it would 'be vital to their future support and upgrade to have companies like BAE involved in the project from the beginning, installing and testing sensitive systems here in Australia'.[53]

Avoiding the valley of death and the future frigates

8.34 At the time the government announced the limited tender for the supply ships, the Minister also referred to the future frigate program, which, he described as 'a very vital program strategically for the Navy and for Australia'. He stated that the government had committed $78.2 million to undertake the design and engineering research 'necessary to bring forward the program'. According to the Minister, part of the work on the future frigate program would be to examine 'whether the government could commit to the construction of some early blocks to ensure that there is no break in production overall'. He referred to this project as 'a potential follow-on program with probably at least eight ships based on the F105 Navantia hull that is currently being constructed in South Australia'.[54] The Minister informed defence and industry representatives in July 2014 that he wanted a continuous build but needed their help to fix the AWD and also design a Future Frigate program that follows on from the AWD with minimal industry disruption.[55] Clearly, the acquisition of the supply ships was not seen as integral to maintaining continuity.

8.35 With regard to the proposed future frigates, Mr King argued strongly in support of an Australian build. He suggested that if Australia did it well and structure well, 'we would actually be building them in this country at the same price that we could buy them anywhere else'. In his view, it would be a legitimate business, with a real strategic value that needs no additional budget investment to do it: no subsidies or similar assistance. According to Mr King, for the first time since Federation, Australia had 'an opportunity for a truly strategic shipbuilding capability'. He referred to the past 50 years of off and on constructions—Australia built the ANZACS but stopped; built *Success* but stopped; built two FFGs.[56] He stated further that should the

---

53 *Submission 13*, p. 4.

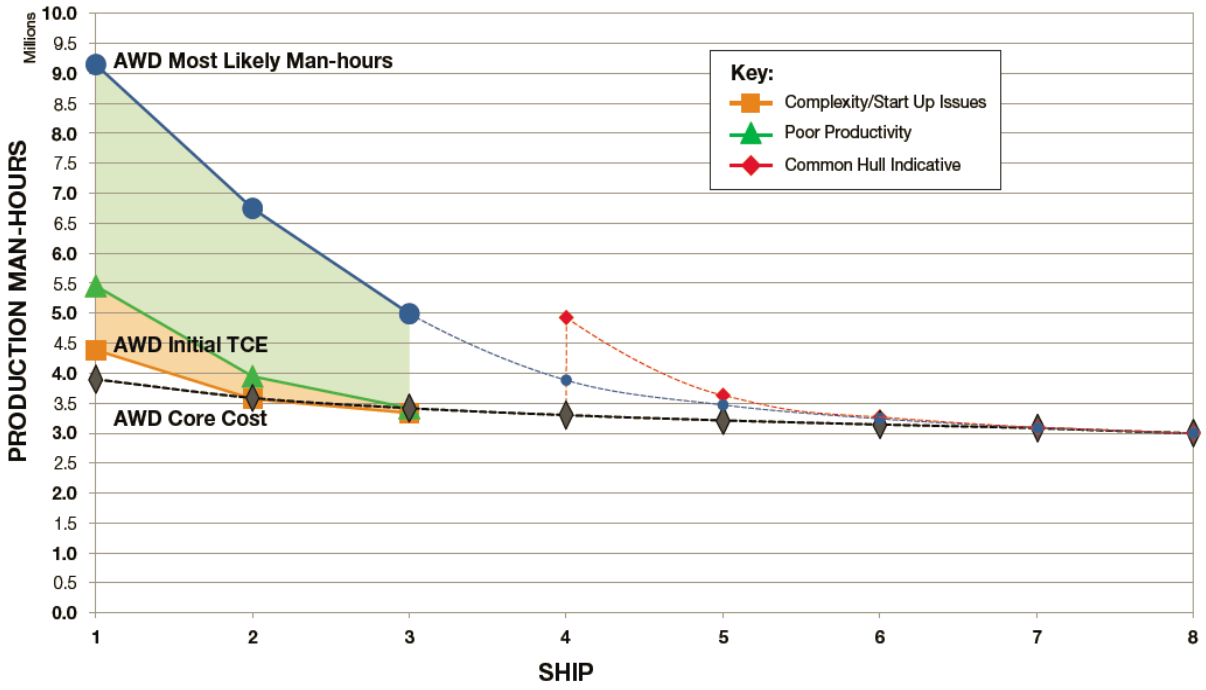
54 'Minister for Defence—Transcript—Naval shipbuilding announcement, CEA Technologies, Canberra', 6 June 2014, p. 2, http://www.minister.defence.gov.au/2014/06/06/minister-for-defence-transcript-naval-shipbuilding-announcement/ (accessed 4 August 2014).

55 'Minister for Defence—Defence and Industry Conference 2014', Adelaide Convention Centre, 29 July 2014, http://www.minister.defence.gov.au/2014/07/29/minister-for-defence-defence-and-industry-conference-2014/ (accessed 4 August 2014).

56 *Committee Hansard*, 21 July 2014, p. 23.

government decide to build the future frigates based on the air warfare destroyer hull, incorporating an Australian-made radar, then potentially the program could start at the point of learning efficiency achieved by the AWDs.[57]

Figure 8.1: Indicative Ship Construction Productivity Impact—Common Hull



To retain the option of building these warships in Australia, the Government has approved a limited feasibility study into using the AWD hull for the Future Frigates. This work will focus on continued production of the current AWD hull, suitably adapted and using capabilities from Australian companies CEA Technologies Australia and SAAB Combat Systems.[58]

57 *Committee Hansard*, 21 July 2014, p. 23.

58 Department of Defence, answer to question on notice No. 30.

8.36 Mr King explained this transition from the AWD to the future frigate. He noted that the AWD did not deliver when expected, so the last AWD construction is estimated to be sitting in the area of 2019–20. He explained that therefore, it was possible, depending on present and future governments, that the future frigate, if authorised and based on the air warfare destroyer hull, could pick up and be 'the basis of a proper strategic shipbuilding industry'.[59] In his view, if the future frigate is based on the same hull as the AWD, 'we should be able to get to world's best practice around about ship 3, and with Australian radars and Australian technology in it'. He informed the committee that he had never seen a better opportunity to have 'a real strategic capability that is cost efficient, that no-one has to apologise for' and that is of value to the taxpayer.[60]

8.37 In highlighting the importance of continuity in shipbuilding, he again stressed his view that the government's initial decision to look at the feasibility of reusing the air warfare destroyer's hull with Australian radars and other equipment represented the 'best opportunity to deal with continuity'. He stated:

> If decisions are made as it is proposed they will be, we could very much be in that place where we keep the continuity of work and keep those skills.[61]

8.38 From Mr King's perspective, it was important to remember that the government's decision to bring forward the frigate program was part of a package of decisions, which also included the AOR, and involved how best to allocate work to Australia to ensure continuity and to achieve 'real strategic capability'.[62] Mr King contrasted the prospects of the frigates with that of embarking on a supply ship that has three times the displacement, with facilities Australia does not have, with a design that no-one in Australia owns plus a 40 per cent premium.[63]

8.39 Mr Thompson welcomed DMO's indications that it was looking at the feasibility of utilising the AWD platform for the replacement frigates. He added, however, that the union would want government to reiterate its position on this. Even so, according to Mr Thompson, the AMWU had concerns about being able to maintain the workforce built up over the life of the AWD project—some 3,800 skilled workers—until such time as a frigate project comes online.[64] Mr Dunk also noted that conceptually the frigate proposal was 'a good idea':

---

59 *Committee Hansard*, 21 July 2014, p. 28.

60 *Committee Hansard*, 21 July 2014, p. 30.

61 *Committee Hansard*, 21 July 2014, p. 31.

62 *Committee Hansard*, 21 July 2014, p. 32.

63 *Committee Hansard*, 21 July 2014, p. 24.

64 *Committee Hansard*, 21 July 2014, p. 35.

> It is something we needed to have done years ago—actually commit to a long-term, ongoing rolling build of naval vessels of a similar type so that we can get good at it and do it at a globally competitive price.[65]

8.40 Mr Dunk observed, however, that at this stage, there was 'only a commitment to study the early stages of the frigate design'.[66] Mr Burns likewise thought that the future frigate proposal was a 'great solution' at this time and strongly supported it.[67] But he made the point that shipbuilders 'cannot go to the bank with a prospect', noting also that industry had only heard about 'the prospect of a future frigate build'.[68] He indicated that work was already being lost and in the meantime:

> There was no indication of when that future frigate program might commence and when we might see the cutting of steel. The problem for industry is that it has been very hard to go to the bank for the last six years, and time is running out for a lot of the SMEs out there.[69]

8.41 Underlining the need for clarity and certainty from Defence, Mr Burns reinforced the argument that industry can only make investments based on a sound strategic Defence capability and acquisition plan. He told the committee that, from an industry viewpoint, the DCP had not been reliable for a number of years. Indeed, in his view, since 2009 industry had not been able to rely on the DCP because it has 'not been delivered, budgeted or funded'. He stated that industry still does not have a funded Defence capability plan at this time.[70] Put bluntly, if 'you do not know and you cannot rely on the plan, you cannot go to the bank and make your plans'.[71] He repeated his concern:

> Industry cannot invest based on the Defence capability plan because it is not reliable and it is not funded and so a company cannot go to its bank and say, 'I need money to sustain myself in order to secure that project.'[72]

8.42 Along similar lines, Mr Dunk referred to the Defence White Paper and the Defence industry policy statement, which, in his view, had never made a demonstrable link:

> …between the strategic requirement to build ships and the strategic requirement to maintain them and the crossover in skills necessary to ensure that we can achieve the maintenance through shipbuilding. It may

---

65 *Committee Hansard*, 21 July 2014, p. 42.

66 *Committee Hansard*, 21 July 2014, p. 46.

67 *Committee Hansard*, 21 July 2014, p. 42.

68 *Committee Hansard*, 21 July 2014, p. 42.

69 *Committee Hansard*, 21 July 2014, p. 42.

70 Mr Christopher Burns, *Committee Hansard*, 21 July 2014, p. 45.

71 *Committee Hansard*, 21 July 2014, p. 43.

72 *Committee Hansard*, 21 July 2014, p. 46.

> well be that shipbuilding in itself is a strategic requirement, but it is not listed as one as far as the government policy is concerned.[73]

8.43 As noted earlier, Mr King put great store on the future frigates providing continuity but that industry was sceptical having only heard the word 'prospect'.[74]

8.44 The comments about the lack of clarity and certainty in, and consistency between, the Defence White Paper, the DCP and Defence's industry policy statement have been of long-standing concern to industry. Many people, including Mr King, recognised the need for a strategic approach to Australia's shipbuilding industry. Indeed, governments of both persuasions have recognised Australia's shipbuilding industry as a strategic asset. In this regard, a number of witnesses questioned the appropriateness of locating industry in the DMO. For example, Mr Burns noted that Defence Industry encompasses 'the whole defence and has to deal with infrastructure and with information group'. He explained that:

> At the moment the industry division resides within the Defence Materiel Organisation. That is the conduit between industry and Defence. It would be our preference that the industry division be elevated out of the DMO and up to a more strategic level so that it can look across the whole of Defence and give industry one conduit into Defence.[75]

8.45 Mr Dunk also noted that Defence has an industry division; which should be demonstrating the link between the ability to build and the ability to maintain but which 'has not really been demonstrably presented'.[76] When asked about the government-wide industry policy decision to try to reshape the Australian naval shipping industry towards being a specialised industry, Mr Burns responded that:

> Again, such a plan would have to be based on a national strategic plan for acquiring naval ships. The government has to decide what ships it is going to buy, where and when and through what process, and then the shipbuilding industry can adjust to that.[77]

8.46 In its broader inquiry, the committee intends to examine thoroughly Defence's industry policy, including where it should reside in Defence. Having and implementing a national strategic plan for acquiring naval ships and Defence industry's place in this plan will also be explored.

---

73 *Committee Hansard*, 21 July 2014, p. 44.

74 *Committee Hansard*, 21 July 2014, p. 46.

75 *Committee Hansard*, 21 July 2014, p. 44.

76 *Committee Hansard*, 21 July 2014, p. 46.

77 *Committee Hansard*, 21 July 2014, p. 46.

Australian participation in the construction of the supply ships

8.47 Although, the Australian Business Defence Industry did not believe that it was either feasible or possible to build the entire ship in Australia, it was of the view that there were options for building some of the ship in Australia—the fit-out of a hull built elsewhere or the construction and shipping of the superstructure for offshore integration if the decision had been taken earlier.[78] Indeed, Mr Hamilton-Smith, informed the committee that anything was better than nothing—the more the better. He indicated defence companies, SAGE Automation as one example, had told him that even with only 20 per cent of the LHD work being performed in Australia, they were fully engaged supporting that project in Melbourne from Adelaide. [79]

8.48 While the Victorian Government accepted that the Federal Government had taken the decision to source the replenishment ships overseas, it strongly called for opportunities to be maximised for local participation in the project. It recommended that the government include a requirement for local industry participation in the Request for Tender that is provided to the Spanish and South Korean companies on these two ships.[80]

Hybrid build

8.49 The committee has referred to the suggestions of having a hybrid build. Mr King explained that some of the unsolicited proposals, of which there were more than two, had come from companies that submitted multiple propositions, some teamed and some not. Drawing on that information, Mr King concluded that the cost to have Australian content in the structural elements of the ship was 'totally disproportionate to the amount of benefit or work we would get out of it'.[81] He reiterated his concern that, to do some structural work in Australia to achieve the 40 per cent level Australian involvement, a lot of that could be just pure profit which contributes little to engaging the Australian workforce. Mr King then referred to the 40 per cent premium for the proposed hybrid build, indicating that the result would be paying nearly 50 per cent more for a ship to get 40 per cent Australian content.[82] Referring to the unsolicited offer, he stated:

> I think 'hybrid' implies more build than just maximising Australian content. I do not want to dance around the facts here, but the hybrid build on the LHD was quite specific. It was two major items of physical construction on the island and these electronics and so on. I am not certain that it would lead to physical construction work for Australian content.[83]

---

78 Mr Graeme Dunk, *Committee Hansard*, 21 July 2014, p. 41.

79 *Committee Hansard*, 21 July 2014, p. 53.

80 *Submission 13*, p. 3.

81 *Committee Hansard*, 21 July 2014, p. 29.

82 *Committee Hansard*, 21 July 2014, p. 30.

83 *Committee Hansard*, 21 July 2014, p. 19.

8.50 Furthermore, experience told him that:

> …whatever is put in as unsolicited proposals worsen when they become a tender, whether it [is] schedule, price, content. For example, in other areas we have had the issue of companies saying they are going to have certain content and we have to be very vigilant to make sure that when we sign the contract we get that content. We have to be very vigilant, because sometimes that starts to get challenged. So the prospect out of the unsolicited proposals was longer to contract, longer to build and far more expensive to acquire.[84]

8.51 Even so, according to Mr King, Australian industry would be offered opportunities via the prime to be involved in the project. He explained that, while the intention was to limit the tender to a Spanish and a South Korean company, one of which would be chosen as the prime, it would not exclude Australian participation.[85] He stated clearly that the tender would have 'a specific requirement for an Australian industry capability plan'.[86] Mr King informed the committee, however, that he did not expect that the opportunities for Australian industry participation would be as significant as with the LHDs—that he did not expect it to be 40 per cent:[87]

> On the LHD, with those two island modules, command-and-control and communications were essentially the Australian elements. What we anticipate in the AOR case will be the command-and-control and the communication elements. But we will ask them to maximise the Australian industry content. Of course, beyond construction there will be the support of the vessels through life.[88]

8.52 While uncertain of what would be involved in terms of the total value of the project being carried out in Australia, Mr King surmised that, possibly, it could be as low as 10 per cent.[89] As noted above, he anticipated that Australian involvement would involve contributing to electronics and command-and-control systems. He stated:

> So the bits that we have encouraged or will encourage tenderers to offer are bids that are inserted in the structure: command and control, which is combat management systems; and communication systems—things like that. They are not part of the structural elements of the ship. [90]

---

84 *Committee Hansard*, 21 July 2014, p. 30.

85 *Committee Hansard*, 21 July 2014, p. 18.

86 *Committee Hansard*, 21 July 2014, p. 27.

87 *Committee Hansard*, 21 July 2014, p. 19.

88 *Committee Hansard*, 21 July 2014, p. 19.

89 *Committee Hansard*, 21 July 2014, p. 20.

90 *Committee Hansard*, 21 July 2014, p. 29.

8.53 According to Mr King, the DMO did not have the details yet, 'of whether it was better to be fitted out there'.[91] Based on history, he imagined that 'the ship would be brought to Australia for final fitting out and the cable laying would be done in the overseas yard'.

8.54 Defence provide additional information on the prospects for Australian content in the project to replace the supply ships. It informed the committee that there would be an opportunity for 'modest Australian industry involvement during the acquisition phase'. It identified the potential for Australian industry to become involved as sub-contractors for activities such as:

- design and installation of the Command, Control, Computers, Communications and Intelligence;
- combat system (preference is an Australian developed SAAB 9LV);
- specialist Integrated Logistic Support Services; and
- develop and provide Royal Australian Navy specific support products.

8.55 Furthermore, Defence stated that the sustainment of the AOR, through the award of an In-Service Support Contract, would provide significant long-term opportunity for Australian industry over the life of the ships.[92]

Conclusion

8.56 Defence has a defence industry policy that recognises the vital contribution this industry makes to Australia's security. Among other things, the policy seeks to increase opportunities for Australia's defence industry to identify and make the most of business opportunities and to compete for acquisition projects. Even though, the Australian prime contractors face significant challenges in meeting Defence's requirements for acquiring the new supply ships, the procurement process so far shows no evidence that Defence consulted with industry or encouraged open discussion about possible Australian engagement with the project. Indeed, it appears as though local shipyards were shut out of all consideration. The committee is of the view that, despite Defence's strong conviction that the domestic shipbuilding industry could not match the cost, productivity or schedule of the selected overseas tenderers, at the very least it should have consulted with local shipyards and allowed them to present their case.

8.57 The committee also looked at problems facing the industry such as the potential loss of jobs and skills as work generated by naval shipbuilding tapers off. Without doubt, evidence overwhelmingly identified the need for, and supported government having, a national strategic plan for Australia's naval shipbuilding industry so that it is not subject to peaks and troughs in demand.

---

91 *Committee Hansard*, 21 July 2014, p. 20.

92 Department of Defence, answer to question on notice No. 7.

Chapter 9

Limited tender

9.1 When announcing the limited tender for the new supply ships, the Minister for Defence explained that the Navy was in urgent need of large support vessels but the government had assessed that it was beyond the capacity of Australia to produce these ships competitively at this stage. He noted:

> In this instance it would not serve anyone if we were to provide a challenge to industry that was beyond its capabilities.[1]

9.2 In this chapter, the committee considers the government's decision to conduct a limited tender and not to test, through an open tender process, the various options put forward by Australian companies and, indeed, the assumptions underpinning the DMO's advice to government at first pass.

Reasons for limited tender—cost and resources

9.3 The committee has recorded the government's arguments in favour of the limited tender which relate to the urgent need to replace the existing vessels and the productivity and capacity of Australian shipyards. The government made the decision based on its belief that it would be more costly and timely to build the ships in full or in part in Australia. Further, that an Australian full or partial build of the supply ships would not help solve the potential 'valley of death'. Representatives of the defence industry in Australia who gave evidence to the committee did not hold these views. Indeed, they put forward options and proposals in support of having substantial Australian involvement in the acquisition of the two ships and argued that the government should have allowed builders to tender for the project on their merits.[2]

9.4 As noted in chapter 3, Mr King was the responsible authority for forming the opinion that Defence should undertake a limited tender and advised the government accordingly. When explaining his reasons for reaching such a view, Mr King referred to industry's concern about Defence offering tenders that they could not possibly win. He stated that he gets told very regularly and very fairly:

> …why are you driving companies to tender for stuff you are never going to award them? In other words, I have to be mindful or practical.[3]

9.5 In seeking to explain further the underpinnings of his recommendation for a restricted tender, he emphasised the fact that Australian companies would not be able to meet Defence's requirements. He took the discussion back to the complexity and

---

1 'Minister for Defence—Boosting Australia's maritime capabilities', 6 June 2014.

2 See for example, Mr Glenn Thompson, *Committee Hansard*, 21 July 2014, p. 36.

3 *Committee Hansard*, 21 July 2014, p. 15.

time involved in securing the design from overseas and the major adjustments required in an Australian shipyard to accommodate that design:

> …first of all, just to get into an arrangement to bid that job…the Australian company would have to team with a design owner. If you look at the submission from the Royal Institution of Naval Architects, they make exactly that point—that you would have to go to a designer. That designer, in all instances I can think of, is also a shipbuilder. So here you are in Australia saying, 'It is an open competition and it is an open tender. I want to tender your design', and this designer is also a shipbuilder wanting to tender that build of it…that design will have to be re-engineered in order to be built in the facilities that will exist in Australia.[4]

9.6 Mr King accepted that an open tender would allow the merits or otherwise of the various Australian proposals to be examined and assessed, but asked at what cost to industry. In this regard, he informed that committee that the costs for a company to tender depended on the proposal but it could be $5 million or $6 million.[5] He cited occasions where industry has said, 'You knew we couldn't meet that, and we were put to this cost'.[6]

9.7 According to Mr King, the tender process would have been ineffective. He again reiterated the impediments to an Australian build that have already been presented throughout this report:

> If we tender for an offshore supplier it typically takes…two years. If it is a hybrid build it is three years. If it is an onshore build it is four years. You have to get the designer, for example. I see the South Australian government has made a submission about the facilities they could increase. In order for that Australian company to effectively make a bid, it would have to team with a designer that was prepared, under reasonable terms, to release that design and it would have to do a lot of work with another government or another backing to come up with, maybe, $200 million worth of infrastructure. It then has to put its bid together. So even if we said, 'I'm trying to get this ship in service by 2017'—very challenging, but as soon as we can—that would at least add, in my opinion, two years to the tender process, to be fair to them.[7]

9.8 He then reasoned that there was not much point in putting out a tender that is 'not fair'.[8] Mr King stressed that if he were to put out a tender and say, 'You must have this solution to me in two years, they would not be able to do it'.[9]

---

4 *Committee Hansard*, 21 July 2014, p. 16.

5 *Committee Hansard*, 21 July 2014, p. 15.

6 *Committee Hansard*, 21 July 2014, p. 15.

7 *Committee Hansard*, 21 July 2014, p. 16.

8 *Committee Hansard*, 21 July 2014, p. 16.

9 *Committee Hansard*, 21 July 2014, p. 16.

9.9 In his view, industry, whether overseas or in Australia, requires a reasonable prospect of winning and reasonable costs in tendering. In response to the proposals that industry had put to Defence, he stated that for a hybrid build alone, the unsolicited offers 'came back with a 40 per cent increased cost and delayed delivery'. He explained:

> An unsolicited proposal is about your lowest degree of certainty about the offer. It is somewhere between marketing and a tender, but it is certainly not tender quality. Invariably, between the unsolicited proposal and the tender things, whatever they may be, get worse—schedule, price, whatever. What prospect against having to balance our budget, against the advantages for the shipbuilding industry to do hybrid…it was not the whole ship…What prospect of success would an Australian company have in an open tender, even had they secured their design rights?[10]

9.10 Mr King repeated his argument that the request for tender has to be legitimate—'to really give them a chance to bid.' He then again explained the process; the impediments for potential Australian bidders to tender; and their inability to meet Defence's requirements:

> …we would have to do add a year to the tender process for a hybrid build and probably another year for an onshore build. So you are going to extend the tender period. You are then probably, from experience, extend the contract period and then you are going to extend the build period. When we extend the build, if we did a hybrid, somehow they [are] going to have to get access to a design that is competitive. Secondly, we are going to take longer to get to tender, longer to get to contract and longer to do the job. In addition to those costs, I am going to have the additional cost of keeping *Success* at sea at somewhere between $20 million and $50 million a year for every year it continues.[11]

9.11 He concluded that he could not be honest to industry and 'satisfy government's and taxpayer's reasonable expectations of value for money'. In essence, according to Mr King, it would be 'misleading industry to say it stands much prospect'.[12]

9.12 As he had done on a number of occasions during the hearing, Mr King stressed the importance of placing the tender process for the supply ships in the broader context of the package of decisions:

- procurement of the AORs through a limited tender;
- consideration of the feasibility of a replacement frigate program continuing on from the air warfare destroyer effectively using that current hull but with different equipment; and
- an open tender to Australia to supply Pacific patrol boats.[13]

---

10 *Committee Hansard*, 21 July 2014, p. 25.

11 *Committee Hansard*, 21 July 2014, p. 25.

12 *Committee Hansard*, 21 July 2014, p. 25.

9.13 Mr King noted that the three decisions relating to the acquisition of naval ships were made concurrently but with a different focus and, when taken as a whole, made sense.[14] He placed a heavy emphasis on the proposed future frigates as an answer to industry's concerns about the loss of jobs and skills and the possible demise of Australia's naval shipbuilding industry. Indeed, as noted in the report, Mr King envisaged the future frigate project as an opportunity to lay the foundations for a truly strategic shipbuilding industry and to ensure the continuity of work and retention of skills.[15] While keenly supporting the prospect of building the frigates in Australia as a follow-on project from the AWDs, Industry's resounding response was that the frigate build was only 'a prospect'. Their immediate concern was ensuring that Australian companies had the opportunity to participate in the construction of the replenishment ships.

9.14 Industry saw Australian involvement in the supply ship build as a means of sustaining a naval shipbuilding industrial base in Australia, thereby bringing a range of economic and innovation benefits to the economy and protecting the country's national security. It did not support the limited tender for the supply vessels.[16] For example, the Adelaide Ship Construction International argued that:

> …it is highly feasible that Australian industry participants could easily have been invited to contribute to the tender process, prior to the Government's decision. It would have been a far better approach for the Government, to have Australian industry plead their case to build the auxiliary supply ships in Australia; rather than make the decision without the industry's input, and defend it later down the track, as they are being forced to do now.[17]

9.15 While the government has made it clear that Australian companies would not be able to bid, Defence has indicated that there would be Australian content, which could be as low as 10 per cent.

Recommendation 1

9.16 The committee recommends that the tender process for the two replacement replenishment ships:

- **be opened up to allow all companies, including Australian companies, to compete in the process; and**
- **make clear that a high value will be placed on Australian content in the project.**

---

13 *Committee Hansard*, 21 July 2014, p. 12.

14 *Committee Hansard*, 21 July 2014, p. 12.

15 See paragraphs 8.35–8.38.

16 See for example, Mr Graeme Dunk, *Committee Hansard*, 21 July 2014, p. 43.

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

Recommendation 2

9.17 The committee recommends further that the government require that an open tender process be used for any future naval acquisitions.

Recommendation 3

9.18 The committee notes that Defence has identified areas where potential exists for Australian industry to become involved as sub contractors in the replenishment ship project. In this regard, the committee recommends that Defence become actively involved in encouraging and supporting Australian industry to explore such opportunities.

Recommendation 4

9.19 The committee recommends that the government release the report of the independent review of the AWD program undertaken by Professor Don Winter and Dr John White.

9.20 Some themes emerged during this short inquiry that have relevance for the committee's broader inquiry into the future sustainability of Australia's strategically vital naval ship building industry. They go to matters such as:

- Defence's understanding of the capacity of Australia's major shipyards and the extent to which their facilities and infrastructure are used for both naval and commercial activities;
- shipyard infrastructure that is or should be regarded as a fundamental input to capability and the need and potential for future investment for critical infrastructure;
- the connection between building a ship and maintaining that ship throughout its operational life;
- the basis for the minister's statement about poor productivity with regard to the AWD project and its relevance to Australia's shipbuilding industry as a whole;
- lessons to be learnt from the AWD project and how they are and should be applied to Australia's future acquisitions;
- the extent to which broader economic benefits of naval shipbuilding are understood and factored into decisions regarding the acquisition of major naval ships;
- current government and industry skills initiatives to mitigate risks to upcoming naval construction project costs and schedules;
- government and Defence strategies to identify and retain required critical skill sets for through-life support and for future projects;
- early engagement of industry in the life of a project and any impediments to this engagement;
- defence industry policy and where it should reside in Defence;

- opportunities for Australian companies to compete for shipbuilding and repair contracts and for increasing Australian content in major shipbuilding projects; and
- the importance of, and difficulties in, developing a long-term naval strategic shipbuilding plan that can cost-effectively support the needs of the Navy while sustaining an industrial shipbuilding base in Australia.

Conclusion

9.21 Although the committee has only started its inquiry into the future sustainability of Australia's strategically vital naval ship building industry, its consideration of the tender process so far for the supply ships has highlighted a number of concerns. They relate to the lack of contestability and competition in the limited tender, the level of industry engagement in the process so far and the absence of long-term strategic planning that led to the decision.

9.22 Decisions, such as the acquisition of the supply ships, are extremely important for both Defence capability and for the sustainability of Defence industry in Australia. They involve huge amounts of taxpayers' money and have long-term implications stretching out for decades. Such decisions should be well-considered and based on sound research, analysis and robust testing. The committee is not convinced that a limited tender involving only two companies is the best way to obtain the necessary information to proceed to second pass.

9.23 A local vibrant and sustainable industry able to support navy vessels throughout their operational lives is critical to Australia's national interest. In this regard, the prime contractors in Australia and the many SMEs engaged in naval shipbuilding need to have certainty and the confidence to continue to invest and participate in the industry. The way in which the tender process was announced and the exclusion of Australian industry from this process has clearly undermined this confidence. Thus, whatever the merits of the decision to opt for a limited tender, the way in which the decision was taken and announced conveyed an unfortunate message to Australian industry. The lack of consultation was at odds with Defence's stated industry policy objectives, which seek to promote a competitive, collaborative and innovative industry.

9.24 Finally, the urgency attached to procuring these vessels highlights the importance of government having a practical, reliable long term strategic plan for naval acquisitions that takes account of the important contribution that local industry has and can make to Defence capability.

Senator Sam Dastyari
Chair

Dissenting Report by Deputy Chair, Senator Sean Edwards

1.1 It is disappointing that I have to table this Dissenting Report on such an important national issue. However the Executive Summary to this report has rewritten history or in this case the evidence we heard at the full day hearing on 21 July 2014 in Canberra. The first and credible draft of this Executive Summary bares no resemblance to what is now tabled. This report denies a number of issues including:

- That the Australian Manufacturing Workers' Union agrees that Labor's failure to address the approaching capability gap has caused this urgency;
- It would take over two-years and $200 million to upgrade infrastructure if we chose to build the ships in Australia; and
- If a hybrid build was undertaken it would require significant re-engineering of production methods, upskilling, infrastructure upgrades and likely further overspends.

1.2 Much evidence was taken on the Air Warfare Destroyer (AWD) construction program during the inquiry yet this report makes scant reference to specific issues which have led to blowouts in build times and costs, as well as the positive fact that cost and build times will likely decrease the more of these ships Australia constructs.

1.3 The inquiry was charged with reviewing the tender process for the Royal Australian Navy's new supply ships as its first order of business.

1.4 I do not agree with 3 of the 4 the recommendations in this report and will address the central areas where I consider that the recommendations cannot be supported in their current form.

1.5 I recognise that the Coalition Government is developing a defence strategy for a way forward to deal with a range of unresolved structural and systemic issues that have remained unaddressed for too long. The Government is again forced to address Labor's economic failures.

1.6 The Government has also agreed to and committed $78.2m to bring forward preliminary design work to ensure Australia maintains the necessary capabilities to retain the option of building the future frigate in Australia. In parallel, the Government is reviewing Australia's shipbuilding requirements, capabilities and capacities in order to inform a long-term strategic naval plan that provides the ADF with leading-edge capabilities and Australian taxpayers with value for money.

1.7 The Government has brought forward an open competition with Australian industry to construct more than 20 replacement Pacific Patrol Boats. This important project will boost the maritime security and resource and fishery protection capabilities of partner countries in the South West Pacific and generate additional work for yards around Australia.

1.8 Australia needs these replenishment ships urgently, they are a vital part of our Navy that can support the operations of our fleet and we face a capability gap if we do not act now.

1.9 The replenishment ships are so big (26,000 tonnes) that no Australian shipyard has the capacity to build them without substantial funding for new infrastructure. Current shipyards are struggling to build ships a third of that size.

1.10 The unquantifiable information in the report around 'some future investment' to upgrade local major shipyards, including 'long-term' benefits are very vague. Yet the Defence Materiel Organisation CEO Mr Warren King estimated at the inquiry hearing it would cost around $200 million. The economies of scale cannot be expected with the two-off build of replenishment ships.

1.11 I note that the report acknowledges the urgent need to purchase the replacement replenishment ships to avoid a capability gap and to stem the continuing costs of maintaining an ageing vessel. However, the report fails to address the main reason for this urgency. Namely, the fundamental failure of the previous government to act on this two years ago. The Australian Manufacturing Workers' Union (AMWU) accepts that performance on construction of the three destroyers is a problem and has caused schedule delays and cost overruns. The AMWU quotes 'The project to replace Success should have been approved and announced *many years* ago'. Yet this evidence is not highlighted in the report.

1.12 There is no getting around the fact that the previous government's decision to defer spending on naval capability over a number of years has put Australia in the position we now face.

1.13 I do not believe that sufficient weight has been given to the compelling evidence provided to this inquiry on the importance of continuity and economies of scale for a healthy and viable Australian shipbuilding industry.

1.14 I acknowledge the Government's agreement and support for much of the evidence, analysis and conclusions in the Draft Report – in particular, the discussions on the importance of productivity issues for naval shipbuilding and the strong track record of overseas shipbuilders in producing large tanker-like vessels cost-effectively and without delays.

General Recommendations surrounding the tender process for the Royal Australian Navy's (RAN) new supply ships

I do not support Recommendation 1

1.15 This calls for the tender process for the two replacement replenishment ships to be an open tender to allow all companies, including Australian companies, to compete in the process. If the Government went to open tender on the supply ships, Australian shipbuilders could never be successful due to capacity, costs and schedule, yet it must be conceded that it would have cost them substantial amounts of money

to take part in the tender process which would exceed millions of dollars with little chance of success.

I do not support Recommendation 2

1.16 This will prevent the Government from investing $78.2 million to provide the option for an Australian Frigate build with an Australian Radar and an Australian designed combat system. This would also prevent the Government from going to tender to Australian Companies for the Pacific Patrol Boat.

1.17 This may have led to the current AWD being built OS.

I do support Recommendation 3

1.18 This should represent all Australian's aspirations.

I do not support Recommendation 4

1.19 This report is commercial-in-confidence and is industry sensitive. Governments of all persuasions over the years have dealt with these types of issues similarly and credibly.

1.20 The Coalition Government is committed to a viable 'value for money' local shipbuilding industry but this cannot start with a two 26,000 tonne replenishment vessels when the current yards are finding it a challenge to build warships a third of that size.

1.21 To do otherwise would be simply economically reckless and irresponsible.

Senator Sean Edwards
Deputy Chair

Additional Comments by Senator Nick Xenophon

Ship happens?

1.1 I welcome the Senate Economics References Committee Chair's report, Part I, into the Future of Australia's naval shipbuilding industry and the tender process for the navy's new supply ships.

1.2 This first part of the inquiry was brought about due to the Government's rash and misguided decision to exclude Australia's naval ship building industry from tendering for Project-SEA 1654, a $1 billion to $2 billion project to supply the Royal Australian Navy with two replenishment ships.

1.3 Instead, as announced by the Defence Minister on 6 June 2014, the Government decided to proceed with a limited tender including only two non-Australian ship builders, Daewoo Shipbuilding and Marine Engineering (DSME) from South Korea and Navantia of Spain.[1]

1.4 The Committee conducted one public hearing, on 21 July 2014 in Canberra, and I acknowledge all those who made themselves available to give evidence, including the Chief Executive Officer of the Defence Materiel Organisation (DMO), Mr Warren King.

1.5 I also acknowledge that notice was short for those invited to attend and some, such as the leadership of ASC in Adelaide, were unable to attend due to a scheduled board meeting in South Australia on 21 July.

1.6 It is imperative that Australian industry be permitted to competitively tender, in whole or in part, for the replenishment ship project.

1.7 That Australian industry has been excluded from the usual competitive tendering process is outrageous and must be reversed.

1.8 This is especially so due to the impending closure of Australia's local car making industry and the flow-on effects in South Australia and Victoria of the expected loss of more than 30,000 manufacturing jobs.

1.9 According to the Australian Industry & Defence Network Inc, naval shipbuilding directly employs some 6,000 people and indirectly nearly 15,000 people. The additional multiplier effect must also be taken into account.

1.10 The Defence Department's normal competitive tendering process must ensure the best, most cost effective and most beneficial outcome for Australia's defence needs, and the national interest. I refer more broadly to the Senate inquiry into

---

1 Defence Minister David Johnston, media release, 6 June 2014.

government procurement moved by Senator Madigan and myself in relation to flaws in the current Commonwealth procurement process generally.[2]

1.11 Cost effectiveness must include active consideration and quantification of through-life benefits of engaging local navy ship building industry, including but not limited to:

(a) The strategic advantage of building and maintaining Australia's essential naval assets in Australia, including and especially during periods of conflict and tension overseas when Australia should not be reliant upon overseas suppliers

(b) The multi-plyer effects for the economy of spending defence funds in Australia

(c) Reductions in through-life maintenance and sustainment costs due to investment in infrastructure and skills during the construction phase

(d) The development of a highly skilled workforce and increased innovation that comes through research and development and knowledge transfer for the wider economy

(e) The project's contribution to national economic growth and employment. These benefits are recognised by the Canadian Government in its National Shipbuilding Procurement Strategy (NSPS)[3]

(f) The tax revenue advantages to Government of engaging local industry, estimated to be up to a third of the cost of the project, as outlined in a 2012 paper published by the Royal United Services Institute of the UK.[4]

1.12 No-one should be under any illusions as to what is at stake here. If the Australian government does not do what is necessary to significantly involve local industry then the country stands to lose up to 7000 naval ship building jobs[5] and many thousands more in supply industries.

1.13 Indeed, the oft-cited 'Valley of Death', which will see navy shipbuilding jobs lost due to lack of engagement from the Federal Government in coming years, is already upon us. The Committee heard that Forgacs laid-off 110 skilled navy

---

2 Senate Finance and Public Administration References Committee, inquiry into Commonwealth procurement procedures, http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Finance_and_Public_Administration/Commonwealth_procurement_procedures

3 Canadian National Shipbuilding Procurement Strategy (NSPS), http://www.tpsgc-pwgsc.gc.ca/app-acq/sam-mps/snacn-nsps-eng.html

4 *Over a third of UK sourced defence contracts may be recovered by the Treasury in tax revenue*, https://www.rusi.org/news/ref:N4F194BF09B370/#.U_v0wvnEJSi

5 Mr Glenn Thompson, AMWU, *Committee Hansard*, 21 July 2014, p. 34.

maritime jobs from its Newcastle Tomago yard recently[6] due to a lock of continuity in naval ship building work.

1.14 The enormity of the 'Valley of Death' will become clear from next year when work for the Air Warfare Destroyer project in Newcastle and Melbourne comes to an end, and will worsen from 2016 when work in Melbourne on the navy's Landing Helicopter Deck (LHD) ships comes to an end.[7]

1.15 Both the Future Frigates and Future Submarine projects were not expected until the 2020s and the Government had not signed-off on any of its public commitments to utilising Australian industry for these projects.

1.16 Recent media coverage, driven apparently by backgrounding from Government sources, indicates that a foreign build of the Future Submarine program was increasingly likely.[8]

1.17 This, despite a clear commitment from the Coalition ahead of the election that it 'wanted to build (the Future Submarines) in Australia'[9] and that 'we will deliver those submarines from right here at ASC in South Australia.'[10]

1.18 Mr King's comments to the Committee that he envisaged Australian industry would build eight Future Frigates were welcome, they did not amount to a commitment, and Australian SMEs were risking going out of business in the meantime.

1.19 As Mr Chris Burns, CEO of the Defence Teaming Centre in South Australia, commented, industry 'cannot go to the bank with a prospect' of a Future Frigate build. He indicated that work was already being lost and in the meantime:

> There was no indication of when that Future Frigate program might commence and when we might see the cutting of steel. The problem for industry is that it has been very hard to go to the bank for the last six years, and time is running out for a lot of the SMEs out there.[11]

1.20 Further context for the Government's decision on the replenishment ships is provided by its decision, also revealed in June, to outsource the construction of 12

---

6 Mr Glenn Thompson, AMWU, *Committee Hansard*, 21 July 2014, p. 35.

7 Mr Glenn Thompson, AMWU, *Committee Hansard*, 21 July 2014, p. 33.

8 *Australia to sign new submarines deal with Japan* …, http://www.news.com.au/national/australia-to-sign-new-submarines-deal-with-japan-as-prime-minister-shinzo-abe-visits-tony-abbott-in-canberra/story-fncynjr2-1226980720135

9 Senator David Johnston, radio interview ABC Canberra 666, 1 May 2013.

10 Senator David Johnston, media release, 8 May 2013.

11 *Committee Hansard*, 21 July 2014, p. 42.

smaller navy vessels to Vietnam via a novel commercial arrangement with an Australian bank, and the construction of two ice breakers in Europe.[12]

1.21 The current Government appears to be walking away from Australian industry involvement in navy shipbuilding.

1.22 This is unacceptable and risks the loss of more than 10,000 skilled and semi-skilled jobs. Leadership must be demonstrated so as to restore adequate and competitive involvement for Australian naval ship building companies.

1.23 The Government's decisions and public comments since June do not support the Government's promise of a Navy Capability Plan in 2015 which will include an 'enterprise level shipbuilding plan that will bring together navy capability requirements, available resources and recommendations around Australian industry requirements.'[13]

1.24 As Mr Burns told the Committee:

> The essence of my appearance at this inquiry is to voice the concerns of South Australia's defence industry, an industry that is reluctant to speak publicly against the government for fear of retribution and repercussions; an industry that is not looking for handouts from government or charity in the awarding of contracts; an industry that wants to be recognised and respected for the significant role it plays in the development and delivery of Australian Defence Force military capability and the preservation of the nation's sovereignty; an industry that wants the opportunity to compete under the construct of holistic whole-of-life benefit to the nation and on a level playing field, where the lowest price is not the determinant of value for money; an industry that would rather collaborate and partner with government and Defence than be subjected to orchestrated campaigns to discredit it in order to justify going offshore to acquire low-risk hardware at the cheapest price.
>
> The last few years under successive governments have truly left the industry confused. It is an industry that truly questions if the Australian government and the department want a defence industry at all. If it does then it needs to support and partner with it, to collaborate and deliver military capability. If it does not, then let us know and we can put on our banana republic T-shirts, learn how to pick fruit, dig ore out of the ground and serve drinks to wealthy tourists—because, ladies and gentlemen, that is all that will be left for our de-industrialised nation to do.[14]

---

12 *South Australian ship builders cut out of contracts as Federal Government buys overseas*, http://www.adelaidenow.com.au/news/south-australia/south-australian-ship-builders-cut-out-of-contracts-as-federal-government-buys-overseas/story-fni6uo1m-1226945174449

13 Defence Minister David Johnston, media release, 6 June 2014.

14 Mr Chris Burns, *Committee Hansard*, 21 July 2014, p. 41.

1.25 1.25 The Committee heard various industry witnesses attest to the ability and capacity of Australian industry to deliver a competitive tender for constructing the replenishment ships, either as part of a hybrid project with overseas shipbuilders and the detailed fit-out done in Australia, or an entire Australian build.

1.26 Infrastructure limitations, where they exist, could be overcome with additional investment of less than $50 million, the committee heard.[15]

Recommendation 1

1.27 That the Government reverse its decision to exclude Australian industry from tendering for the navy's replenishment ship project and permit Australian industry to tender, in whole or in part, as is usual for such projects.

1.28 Virtually nothing I heard in the public hearing or read in the submissions gave me any comfort that the current Government will engage properly with Australian industry for its future navy ship building needs.

1.29 This inquiry has a long way to go but the direction of the Government is clear. It appears to be prepared to cut Australian industry loose, and for the economy to be further de-industrialised with the loss of many thousands of jobs.

1.30 What we heard from Mr King was blame-shifting for the problems encountered in the Air Warfare Destroyer project onto Australian industry, a project for which the DMO had lead responsibility; selective criticism of the current Landing Helicopter Dock (LHD) ships being built in Melbourne and a one-person assessment that Australian naval ship building industry was simply not capable of competing for the replenishment ship project due to cost and time demands.

> LHD was supposed to be delivered to me months ago is still late—late by seven months. And they had all the time they wanted to build that ship. I have to make judgements over the top of a commercial proposal. Perhaps I could give you some examples. On an LHD there were 30,000 man-hours of work left over that Navantia did not do. It cost 70,000 hours in Australia. I have to put forward a degree of credibility, and for someone to propose that a hybrid build (for the replenishment ships) would add only six months is not credible. I spend most of my time trying to explain to the public why the AWD is late, why the LHD is now seven months late. And it is because we get more ambitious than we are able to deliver. I would like to see an industry that can deliver.[16]
>
> There is not much point in my putting out a tender that is not fair. If I were to put out a tender and say, 'You must have this solution to me in two years,' they would not be able to do it.[17]

15 Mr Andrew Fletcher, Defence SA, *Committee Hansard*, 21 July 2014, p. 49.

16 Mr Warren King, *Committee Hansard*, 21 July 2014, p. 19.

17 Mr Warren King, *Committee Hansard*, 21 July 2014, p. 16.

1.31 Mr King appears to lightly excuse Navantia's incomplete work on the LHD, using this as a pretext to criticise a local contractor for low productivity in cleaning-up after the Spanish company's incompetence.

1.32 The above comments by Mr King, among others, raise questions as to his ability to provide Australian industry with a fair assessment of past performance and a fair go in obtaining future defence work.

1.33 The Chair repeatedly challenged Mr King's assertion that Australian industry was incapable of delivering the replenishment ship project, in part or in full, pointing out that this assertion would be tested in an open tender process.

1.34 Mr King told the committee that he was, in effect, saving the local industry the time and money involved in tendering in a hopeless cause.

1.35 This is a very disappointing position for the head of the DMO to take. It is unacceptable and must be reversed by the Government.

1.36 Mr King said it was he who advised the Government to exclude Australian industry from the project, for the reasons mentioned above.

1.37 Consideration for First Pass approval to proceed with Mr King's recommendation of a limited tender was given by the National Security Committee on 4 April 2014.[18]

1.38 The Defence Minister waited until 6 June to announce the decision. The timing of the announcement came two days after the Defence Minister and Finance Minister flagged the findings of the secret Winter Report into the Air Warfare Destroyer project.

1.39 The Government has refused to release the Winter Report, in whole or in part, while citing it to heavily criticise Australian navy ship building industry.

1.40 Indeed, in its 6 June 2014 announcement to limit the tender for the replenishment ships, the Government cited 'the current low productivity of shipbuilders involved in the AWD project; and value for money considerations' as partly justifying its decision.

1.41 It is disappointing that the Government kept secret from Australian industry for two months its decision to exclude local participation in a project that would provide much-needed additional work for thousands of Australians.

1.42 It is further disappointing that it has used a secret report to partly justify its decision, once it was finally announced.

---

18 Department of Finance, *Submission 14*, p. 2.

1.43 The Senate has voted twice on my motions to have the Defence Minister produce the Winter Report and on both occasions the Government has refused.

Recommendation 2

1.44 The Government must release the Winter Report, in whole or in part, so that Australian industry and all Australians know the basis upon which it is making decisions on the future of thousands of Australian workers and their families.

Senator Nick Xenophon
Independent Senator for South Australia

APPENDIX 1

Submissions received

Submission Number	Submitter
1	Forgacs
2	Australian Business Defence Industry
3	Mr Wade Noonan MP and Mr Cesar Melhem MP
4	Australian Manufacturing Workers' Union
5	Defence SA
6	The Royal Institution of Naval Architects, Australian Division
7	Australian Industry and Defence Network
8	Adelaide Ship Construction International
9	BAE Systems Australia
10	Defence Teaming Centre
11	Lean Design Australia Pty Ltd
12	Navy League of Australia
13	Victorian Government
14	Department of Finance (including answers to question on notice)
15	Mr Grant Spork

Additional information

- Answers to questions on notice from a public hearing held in Canberra on 21 July 2014, received from the Department of Defence on 12 August and 19 August 2014.

APPENDIX 2

Public Hearing and Witnesses

CANBERRA, 21 JULY 2014

BURNS, Mr Christopher, Chief Executive Officer, Defence Teaming Centre Inc.

DUNK, Mr Graeme, Manager, Australian Business Defence Industry

EDGE, Mr John, Acting Deputy Secretary, Business, Procurement and Asset Management, Department of Finance

FLETCHER, Mr Andrew, Chief Executive, Defence SA

HAMILTON-SMITH, The Hon. Martin, Minister for Defence Industries, South Australian Government

KING, Mr Warren, Chief Executive Officer, Defence Materiel Organisation

SHERIDAN, Mr John, Australian Government Chief Technology Officer and Procurement Coordinator, Department of Finance

THOMPSON, Mr Glenn, Assistant National Secretary, Australian Manufacturing Workers Union

THORNE, Mr Col, General Manager Land and Maritime, Defence Materiel Organisation