Defence capability

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Key issue

Defence is undertaking a significant number of capability acquisition projects with an approximate value of $200 billion to 2027–28. Scrutiny of the expenditure and scheduling of these projects will be important throughout the new Parliament.

Additionally, the Australian Government is ramping up its efforts to promote Australian Defence exports overseas.

Introduction

Since 1976 Australian governments have set out their plans for defence capability in a series of white papers. The most recent 2016 Defence White Paper (2016 DWP) included an ambitious commitment to purchase a wide variety of capabilities for the Australian Defence Force. The 2016 Integrated Investment Program (IIP), which accompanied the 2016 DWP, listed 200 ‘key investment decisions’ worth approximately $195 billion across the decade to 2025–26. By the time of the 2017–18 Budget this amount had been revised upwards to $200 billion to 2027–28.

Investment in the development, construction and sustainment of large scale defence capability programs is a long-term process, some of which originates from decisions made long before the 2016 DWP and crosses successive governments. Of particular note are the F-35 Joint Strike Fighter (JSF) aircraft, Future Submarines and Future Frigates programs.

For this reason, it is important that the government’s intent for such programs is published in documents like the IIP to not only inform Parliament and the general public, but also to provide industry with the opportunity to adequately prepare and participate in defence programs. Although the IIP was generally well received at the time of release, some aspects were criticised, as discussed below.

While praising the IIP’s narrative description of the capability streams, Mark Thomson (former analyst for the Australian Strategic Policy Institute, ASPI), criticised the lack of data around the cost of sustaining equipment, facilities and personnel. In relation to the IIP’s ‘approximate investment value’ of individual projects he said:

Unfortunately, the numbers are given in ‘out-turned’ dollars that include anticipated inflation over the life of the project. For example, the ‘greater than $50 billion’ price for the future submarine reduces to a much more modest ‘greater than $28 billion’ in today’s dollars under reasonable (by though no means certain) assumptions about spending profile. Using out-turned dollars as the sole source of disclosed costs is misleading to the point of obfuscation.

Thomson was also critical of the lack of information about program timeframes, which are given as broad windows. With the year-of-decision and in-service dates for programs excluded, ‘the IIP provides precious little useful information about project timing’.

These criticisms feed into a broader perception that there is now less information available about Defence’s capital program than was once the case. Writing about the 2018–19 Budget, ASPI’s Marcus Hellyer points out:
... there has been a significant decline in transparency in Defence, particularly in its capital program. Defence isn’t reporting project approvals in the annual report or additional estimates statements in anything resembling a comprehensive fashion. And now it’s no longer including a list of planned project approvals for the coming year in its portfolio budget statement (PBS). So we can’t know what approvals are coming up or whether they’re actually approved. That’s not to mention that there’s no coverage at all of the information and communications technology (ICT) program.

Not much had changed in the 2019–20 Defence Budget. These criticisms have been compounded by the fact that the previously promised updates to the online version of the IIP have not occurred.

The information that is publicly available about key Defence acquisitions is highlighted below.

**Maritime capability**

The Turnbull Government released the *Naval Shipbuilding Plan* in May 2017. The Plan shows how the naval shipbuilding programs contained in the 2016 DWP should be delivered. It sets out naval acquisition worth around $90 billion in three continuous build streams—submarines, major surface combatants and minor surface combatants. The Plan encompasses not just the acquisition of naval vessels, but includes over $1 billion in shipyard infrastructure modernisation and around $25 million towards skilling and growing the workforce.

The Plan confirmed the Turnbull Government’s April 2016 decision to develop two main shipyards in Australia: one at Osborne in South Australia for the construction of major surface combatants and submarines; and the other at Henderson in Western Australia for the construction of minor naval vessels. The existing infrastructure at Osborne in South Australia is currently being used for the finalisation of the Hobart Class Air Warfare Destroyer (AWD) program and sustainment of the Collins Class submarines. The Plan also outlines arrangements for upgrading the naval shipbuilding facilities in South Australia, the agreements in place with the South Australian Government, and the role of Australian industry. In addition, the Plan shows that sustainment activities in Cairns, Queensland are maintained for the hydrographic fleet, Armidale Class Patrol Boats, and the Pacific Patrol Boats.

The notion of a continuous build is a response to the problems associated with the peaks and troughs of past naval shipbuilding projects in Australia (skilled workforce decline when production ceases and the expense of re-establishing shipbuilding facilities), but there are problems with this approach as well. ASPI assesses that the costs involved will limit Defence’s ability to invest in other capabilities as ‘$3.5–4 billion of cash flow’ will be locked into naval shipbuilding ‘every year, forever’. The plan to develop and maintain a continuous naval shipbuilding capability has the potential to ‘consume around 30%’ of the capital equipment budget over the long-term.

The Plan contains a long list of acquisition projects and sustainment activities. Some, like the AWDs, are well on their way to completion while others are in the early stage of their continuous build programs, such as the Attack Class Future Submarines, the Hunter Class Future Frigates and the Arafura Class Offshore Patrol Vessels.
Future Submarine Program

The Attack Class Future Submarine program is considered to be one of the most ambitious defence acquisitions in Australia’s history. The 2016 DWP confirmed Australia would acquire 12 ‘regionally superior’ conventional submarines under a rolling acquisition program. The overall investment is expected to be worth more than $50 billion (in constant dollars) for the acquisition of 12 boats out to the 2050s and another estimated $50 billion (in constant dollars) for sustainment out to the 2080s.

In April 2016, Naval Group was announced as Australia’s international design partner with the Shortfin Barracuda Block 1A conventional submarine design. The Turnbull Government promised that the 12 submarines would be ‘Australian built’ securing ‘Australian jobs’ and using ‘Australian steel’. Construction of the first boat is expected to begin around 2022–2023 with an expected timeframe for entry into service sometime in the early 2030s.

Lockheed Martin was awarded the contract to integrate the upgraded AN/ BYG-1 combat system in the Attack Class submarines. The contract is worth around $1.4 billion over the life of the program.

Offshore Patrol Vessels

The need to replace the Armidale Patrol Boats was articulated in the 2009 Defence White Paper with a plan for 20 multi-role Offshore Patrol Vessels (OPV) that could conduct additional maritime patrol functions, such as mine hunting and hydrographic services. By the time the 2013 Defence White Paper was released, the need to replace the Armidale Class had become more urgent so the multi-role idea was put off for future consideration while a proven capability was sought. However, in 2015 the Abbott Government decided OPVs would be built and the timetable would be accelerated to begin a continuous build program in 2018.

In November 2017 the Turnbull Government announced German shipbuilder Lürssen as the successful designer of the RAN’s 12 new OPVs, worth around $4 billion. The first two OPVs are being built at Osborne, South Australia by ASC and Lürssen Australia, and the next ten vessels will be built at Henderson in Western Australia with Civmec. The Keel laying ceremony for the first of these vessels took place on 10 May 2019. All 12 OPVs are expected to be delivered by 2030.

Future Frigates

Over the last decade, successive governments have stated an intention to purchase replacement frigates for the Royal Australian Navy’s (RAN) eight Anzac Class Frigates. The 2016 DWP confirmed the intent to acquire nine new Future Frigates, with construction commencing in 2020 and the first ship entering service in the late 2020s.

In June 2018 the Australian Government announced that BAE Systems would design the RAN’s Hunter Class Future Frigate and ASC Shipbuilding would build the new vessels in Osborne, South Australia. The Hunter Class project is worth around $35 billion.

Other minor surface vessels

In 2014 the Abbott Government unveiled the program to replace the Pacific Patrol Boats, which were gifted to 12 Pacific Island states between 1987 and 1997. The first of the 21 new Guardian Class vessels was gifted to Papua New Guinea in late 2018 and the second to Tuvalu in April 2019. The Guardian Class is designed and built by Austal in Western Australia, with acquisition worth over $500 million and sustainment (by Austal) a further $400 million.

The 2016 DWP announced that Defence would replace its hydrographic vessels
with ‘an efficient combination of military and commercial hydrographic and oceanographic survey capabilities’. During the 2019 Federal election campaign Prime Minister Scott Morrison announced the Government would spend up to $1 billion on the construction of three new naval vessels at Henderson shipyard in Western Australia: one hydrographic vessel and two new mine countermeasures vessels (brought forward from the 2030s to the mid-2020s).

**Air capability**

The decision to acquire seventy-two F-35 JSF aircraft is a prime example of the long-term nature of Defence acquisition projects. Australia first considered how it would replace the Royal Australian Air Force’s (RAAF) F/A-18 Classic Hornets and the F-111 fighter aircraft in the 1990s. Although Australia joined the United States JSF Program in 2002, the first two F-35A JSF aircraft were not delivered until December 2014 (in the US) and only arrived in Australia in December 2018. While the JSF program has encountered many problems, all three US military services using the aircraft have declared initial operating capability.

The RAAF’s first JSF squadron (No. 3 Squadron) is expected to be operational in 2021 and all 72 aircraft fully operational by 2023. There are currently four JSF aircraft in Australia. The sustainment budget for the JSF is $191 million for 2019–20, but this is expected to grow to an as-yet-unknown amount. There are reportedly problems with the supply of spare parts, which has affected the availability of the aircraft in the US.

An interesting recent development in the unmanned aerial vehicle industry is the Boeing Airpower Teaming System, or Loyal Wingman. Loyal Wingman will be developed in Australia by Boeing and the Australian Government. It is expected to be configured for different types of missions and interoperability with other types of aircraft. The first flight is expected to occur in 2020.

**Land capability**

The larger ships and fighter aircraft tend to attract most of the public attention, but the Australian Army is in the midst of a substantial acquisition program to replace many of its vehicle types, notably under LAND 121 with the delivery of around 7,500 vehicles, and LAND 400. These include Thales Hawkei Protected Mobility Vehicle-Light and Rheinmetall’s Boxer Combat Reconnaissance vehicles. Projects LAND 121 (phase 3B and 5) plus LAND 400 (phase 2) feature in Defence’s top 30 projects and total an approved budget of over $10 billion.

**Defence exports**

The Defence Export Strategy was released by the Turnbull Government in January 2018 with the aim of making ‘Australia one of the top ten global defence exporters within the next decade’. The Government announced that the Strategy included a $3.8 billion Defence Export Facility, which is administered by the Export Finance and Insurance Corporation (Efic), the Australian
Government’s export credit agency. Efic’s Annual report 2017–18 explains that the $3.8 billion is over ten years and allows Efic ‘to refer applications for defence export finance to the National Interest Account’ should Efic be ‘unable to use the Commercial Account’. This means that in cases where the Minister (on advice from the Board) deems a transaction to be in the national interest, Efic can process the transaction via the National Interest Account. Of note, the Defence Export Facility ‘amount is an upper limit for referrals, not additional funding for Efic’.

In addition, the Strategy allocated $20 million per year towards implementing the Strategy, which, to date, appears to be going to plan. In April 2018 the Australian Defence Export Office was opened in Canberra and in the same month, former Defence Minister David Johnston was appointed Australian Defence Export Advocate.

The Turnbull Government hosted the inaugural meeting of the Defence Export Forum in May 2018, which involved ‘Commonwealth agencies, state and territory governments, and industry peak bodies’. Following the forum, the Australian Defence Export Office and Austrade signed a Memorandum of Understanding aimed at providing potential defence export companies with greater opportunities.


It is difficult to quantify the number of defence-related exports from Australia-based companies using existing available data. Defence Export Controls (DEC) publishes statistics on its website each quarter on the number of export permits granted and their value. However, beyond issuing a permit to export, no public data exists, at present, to identify how many successful permit applicants actually exported and whether they were dual use (civilian and military) or solely defence-related. Additionally, the figures provided on the DEC website are not comprehensive as export applicants are not required to provide DEC with a value estimate. The DEC 2016–17 estimated value of export permits was over $1 billion.

ASPI noted in The Cost of Defence 2018–19 that the Department of Foreign Affairs and Trade (DFAT) publishes trade figures each year in the Composition of Trade Australia, but these figures are much lower than the figures published by the DEC. The 2017–18 figures showed a drop in ‘Australian produced exports’ from $47 million in 2016–17 to $35 million in 2017–18 in the category of ‘Armoured fighting vehicles, arms of war etc & parts’. ASPI commented that the Department of Defence is working on developing ‘a more robust methodology and ultimately more reliable defence export data’. It is not yet known whether this information will be made public.

ASPI suggests that the global supply chain for defence exports is where the greatest opportunities lie. For instance:

… rather than manufacturing small numbers of complete systems either for the ADF or for export, it can be more attractive for Australian industry to make components for global production runs of hundreds or thousands, particularly if that contribution continues past the manufacturing phase into through-life sustainment.

The Global Supply Chain Program is managed by the Centre for Defence Industry Capability (CDIC) and involves major defence primes BAE Systems, Boeing, Leidos, Lockheed Martin, Northrop Grumman, Raytheon, Rheinmetall and
Thales (but does not appear to include Naval Group) who facilitate access for SMEs to international supply chains.

Some commentators have suggested the Government’s goal of ten years to develop a competitive defence export market for Australia will be difficult to achieve. Nan Tian (SIPRI) points out that it took South Korea more than 30 years to develop a ‘competitive arms industry’. While it is recognised:

... that domestic demand is not enough to support the growth of its arms industry, becoming a major weapons exporter is often not in the control of the exporting country, but rather based on competition, demand, and bilateral relationships with other countries.

ASPI believes the top ten goal ‘seems a stretch’ given Australia ‘would have to leapfrog a burgeoning industrial behemoth such as South Korea to get there’. Other commentators are somewhat more optimistic. Kate Louis (Australian Industry Group) acknowledges the ambitious goal but argues it is achievable. Louis observed that innovation in the defence sector has already proven successful in the global market, services provided by Australian companies in testing and evaluation are competitive, and opportunities for Australian companies to join the global supply chain for major projects like the JSF have expanded.

Bipartisan support

One important feature that affects defence capability development and acquisition, Australian industry and defence exports is the need for consistent and bipartisan support given the longevity of defence projects. This issue was a key component of the Joint Standing Committee on Foreign Affairs, Defence and Trade’s Inquiry into the benefits and risks of a Bipartisan Australian Defence Agreement, as a basis of planning for, and funding of, Australian Defence capability. The Committee’s report, tabled in Parliament in November 2018, noted that Defence funding and policy could be more stable over the long-term if there was bipartisan support in the Parliament on key issues. To achieve this, the Committee recommended ‘the establishment of a new statutory parliamentary committee with an exclusive focus on Defence’, which would be modelled on the Joint Committee on Intelligence and Security. No government response was published prior to the dissolution of the 45th Parliament. The re-elected Morrison Government now has the opportunity to revisit the Committee’s recommendations, the significance of which is highlighted by the extent of Defence’s capital program.

Further reading


Recent government policy documents:

- 2016 Defence White Paper
- 2016 Integrated Investment Program
- 2016 Defence Industry Policy Statement
- Australian Industry Capability Program
- 2017 Naval Shipbuilding Plan
- 2018 Defence Export Strategy
- 2018 Defence Industrial Capability Plan
- 2019 Defence Industry Skilling and STEM Strategy