

Chapter 1

Introduction

Referral of inquiry

1.1 On 2 December 2015, the Senate referred the following matter to the Foreign Affairs, Defence and Trade References Committee for inquiry and report by 1 May 2016:

Planned acquisition of the F-35 Lightning II (Joint Strike Fighter), with particular reference to:

- a. the future air defence needs that the aircraft is intended to fulfil;
- b. the cost and benefits of the program to Australia, including industrial costs and benefits received and forecast;
- c. changes in the acquisition timeline;
- d. the performance of the aircraft in testing;
- e. potential alternatives to the Joint Strike Fighter; and
- f. any other related matters.

Conduct of the inquiry

1.2 On 17 March 2016 the Senate agreed to extend the reporting date for the inquiry to 28 June 2016. On 9 May 2016 the inquiry lapsed with the dissolution of the Senate and the House of representatives for a general election on 2 July 2016. On 13 September 2016 the Senate agreed to re-adopt the inquiry with a reporting date of 13 October 2016.

1.3 The committee advertised the inquiry on its website and wrote to individuals and organisations likely to have an interest in the inquiry and invited them to make written submissions.

1.4 The committee received 57 submissions and 16 supplementary submissions to the inquiry. These submissions are listed at Appendix 1 and are published on the committee's website.

1.5 The committee held one public hearing on 22 March 2016 in Canberra. The witnesses who appeared at the hearing are listed at Appendix 2 and the program and *Hansard* transcript of the hearing are published on the committee's website.

History of the Joint Strike Fighter in Australia

1.6 In 1999, Project AIR 6000 was established to acquire a new air combat capability to replace the Royal Australian Air Force (RAAF) F/A-18A/B fighter aircraft when they reached their life-of-type¹ around 2012-15, and the F-111

1 'Life-of-type' describes how long a particular system or asset will remain operationally functional (in a cost effective way) before it needs to be upgraded or replaced.

strike/reconnaissance aircraft when they reached their life-of-type in 2020.² The 2000 Defence White Paper confirmed the government's commitment to consider new air combat capability options stating that '[u]p to 100 new air combat aircraft' would be acquired, with the acquisition phase expected to start in 2006-07 and the 'first aircraft entering service in 2012'.³

1.7 In 2002, the US invited close allies, including Australia, to invest in the System Development and Demonstration Phase of its F-35 Program, 'where capability is developed, tested and evaluated resulting in capability expansion over time'. In June 2002, the Australian government 'decided in conjunction with the decision to join the F-35 System Development and Demonstration program, that the F-35A was the preferred aircraft to provide Australia's new air combat capability'. Defence advised that it also 'undertook to monitor other prospective candidates should the F-35 Program not develop as expected'. Defence noted that:

In making this decision Australia recognised the benefits of standardisation, rationalisation and interoperability associated with a cooperative program to satisfy similar operational requirements more affordably, as well as to provide industrial participation opportunities in global supply chains.⁴

1.8 In 2006, the Australian government considered the first stage (First Pass) for the AIR 6000 Phase 2A/B and agreed to Defence committing to the F-35 Production Sustainment and Follow-On Development Memorandum of Understanding, which provides the framework for ongoing partner engagement and obligations through the life of the F-35 capability following the completion of the System Development and Demonstration phase.⁵

1.9 In November 2009, the Australian government approved AIR 6000 Phase 2A/B Stage One (Second Pass) of the Australian Program to acquire:

- 14 F-35A aircraft and the associated support elements necessary to establish the initial training capability in the US at a cost of A\$3.2 billion;
- (at least) a further 58 F-35A aircraft in 2012; and
- an additional 28 aircraft to be considered in the context of the Force Structure Review that informed the new Defence White Paper.⁶

2 Department of Defence, *Submission 55*, p. 4; David Watt, *The Joint Strike Fighter: overview and status*, Parliamentary Library, 26 July 2012, p. 1.

3 Department of Defence, *Defence new major capital equipment proposals 1998-2003*, 1999, p. 39.

4 Department of Defence, *Submission 55*, p. 4.

5 Department of Defence, *Submission 55*, p. 5.

6 Department of Defence, *Submission 55*, p. 5.

1.10 In March 2010, the US Department of Defense (USDoD) advised that the F-35 Program had breached certain US Government requirements.⁷ This, coupled with the impact of the Global Financial Crisis, led to a re-baselining of the F-35 Program, including the deferral of production commitments. Subsequently, the F-35 Program aimed to complete the System Development and Demonstration phase with an initial warfighting capability by the end of 2017. As a consequence, the procurement of the Australian F-35 Program was deferred by two years resulting in initial operational capability moving from 2018 to 2020.⁸

Past parliamentary inquiries

1.11 The Joint Standing Committee on Foreign Affairs, Defence and Trade (JSCFADT) has been monitoring the progress of the Joint Strike Fighter program (JSF program) through its reviews of Defence Annual Reports. The JSCFADT has repeatedly expressed disappointment in the level of transparency and reporting regarding the JSF program.⁹ In its most recent review of the Defence annual report, the JSCFADT noted that:

The information on the Joint Strike Fighter program in the Defence Annual Report and ANAO Major Projects Report is superficial compared to what is reported publically and to the Congress in the United States. In particular, the US Government Accountability Office and DOT&E report to the US Armed Services Committees are far superior to what is reported to the Australian Parliament. Information regarding the Joint Strike Fighter program, such as the allocation of specific weapons to software blocks, is available on various US websites. Defence must be more transparent in their reporting and not hide behind claims of national security classification when the information is readily provided by other countries, in particular the US. As Australia is one of the eight international partner countries in the Joint Strike Fighter program, the Committee emphatically believes that the reporting on the program available to the Australian Parliament be on par with that available to the US Congress.¹⁰

Performance audits

1.12 In 2013, the Australian National Audit Office (ANAO) conducted companion performance audits regarding the management of Australia's air combat capability, considering the acquisition of the F-35A Joint Strike Fighter and the upgrades and sustainment of the F/A-18 Hornet and Super Hornet. The audits acknowledged that

7 The Nunn-McCurdy Act requires the US Department of Defense to report to Congress whenever a Major Defense Acquisition Program experiences cost overruns that exceed specified thresholds.

8 Department of Defence, *Submission 55*, p. 5.

9 Joint Standing Committee on Foreign Affairs Defence and Trade, *Review of the Defence Annual Report 2013-14*, p. 48; Joint Standing Committee on Foreign Affairs Defence and Trade, *Review of the Defence Annual Report 2012-13*, p. 68.

10 Joint Standing Committee on Foreign Affairs Defence and Trade, *Review of the Defence Annual Report 2013-14*, p. 48.

there are inherent risks associated with advanced defence technology development and production programs:

This audit report draws attention to the wide-ranging cost, schedule and performance risks inherent in advanced defence technology development and productions programs such as the JSF Program. These risks arise from the need to:

- specify products, in function and performance terms, that continue to satisfy requirements at delivery and are capable of being upgraded in line with changing military requirements;
- pay for work on products years ahead of opportunities to verify their compliance with specifications; and
- ensure continuous collaboration across wide-ranging contractual, organisational, geographic and national boundaries, that is capable of completing highly technical work extending over many years, and of coping with unforeseen technical advances or changes in user requirements.¹¹

1.13 The ANAO reports did not make any formal recommendations regarding administrative improvements to Defence's management of the ADF's air combat capability, noting that the approach by Australian governments and Defence to-date has been appropriate:

...in the context of the JSF Program where there are many dependencies not under Australia's control, the approach adopted to-date by Australian Governments and the Defence Organisation has provided appropriate insight into the program, in support of informed decision-making, commensurate with the cost and complexity of the planned acquisition.¹²

1.14 However, the ANAO cautioned that it 'remains challenging' to ensure that the coordination of the 'highly complex and costly procurement' of the F-35A with the 'effective sustainment of the ageing F/A-18A/B fleet' would not result in a 'capability gap'.¹³

Structure of report

1.15 The report is structured as follows:

- Chapter 2 considers Australia's air defence capability needs, its current air defence capability and the air defence capability promised by the F-35A Lightning II Joint Strike Fighter (F-35A);

11 Australian National Audit Office, *Audit report No. 6 (2012-13) Management of Australia's Air Combat Capability—F-35A Joint Strike Fighter Acquisition*, pp 20–21.

12 Australian National Audit Office, *Audit report No. 6 (2012-13) Management of Australia's Air Combat Capability—F-35A Joint Strike Fighter Acquisition*, p. 30.

13 Australian National Audit Office, *Audit report No. 6 (2012-13) Management of Australia's Air Combat Capability—F-35A Joint Strike Fighter Acquisition*, p. 30.

- Chapter 3 discusses the concerns raised in evidence regarding the performance of the F-35 in testing, including the aircraft's manoeuvrability and flight capabilities; stealth capabilities; mission systems; mission data loads and Autonomic Logistics Information System; its escape system; and the performance and accuracy of the Verification Simulator (VSim);
- Chapter 4 considers the F-35A acquisition schedule and the risk of the creation of a capability gap should there be further delays to the acquisition timeline as well as potential alternatives to the F-35A;
- Chapter 5 considers the effect of Australia's participation in the F-35 program on local industry and the Australian economy, including the costs and benefits; and
- Chapter 6 includes the committee's view and recommendations.

Acknowledgements

1.16 The committee thanks all those who contributed to the inquiry by making submissions, providing additional information or appearing at the hearing.

