

Defence participation in the F-35 project

Background

- 5.1 The Defence 2000 White Paper states that ‘air combat is the most important single capability for the defence of Australia, because control of the air over our territory and maritime approaches is critical to all other types of operation in the defence of Australia.’¹ Currently, Australia’s air combat capability is based on a fleet of 71 F/A-18 fighters. The F/A-18 is due to be phased out by 2012.
- 5.2 Air strike is the capability to destroy or neutralise land and sea targets outside Australia’s territory. Australia’s air strike capability is provided through 28 F-111 aircraft.
- 5.3 On 27 June 2002 the Government announced that it would participate in the development phase of the Lockheed Martin F-35 Joint Strike Fighter, ‘with the expectation that the F-35 will meet Australia’s future air combat and strike requirements.’²
- 5.4 Australia has committed US\$150 million over 10 years to the project which will give it Level 3 status. Other countries that have joined the program include the United Kingdom (Level 1), the Netherlands, Italy, Denmark and Norway (Level 2), and Canada (Level 3). The decision by Australia to be part of the System Design and Development (SDD) has ended the competitive tender element phase 1A of Air 6000. Air 6000 is the procurement replacement program for the F/A-18 and F-111 aircraft.

1 Department of Defence, *Defence 2000, Our Future Defence Force*, 2000, p. 84.

2 Department of Defence, *Annual Report 2001-02, 2002*, p. 7.

- 5.5 The Government's decision to be part of the SDD is not an obligation to purchase the aircraft. The actual procurement decision will not be made until 2006.³ The Defence 2000 White Paper indicated that Australia, under the Defence Capability Plan, would need to purchase up to 100 new aircraft to replace both the F/A-18 and F-111 aircraft.⁴
- 5.6 The Defence Minister did not commit to the need to purchase 100 F-35s commenting that what Australia is looking for 'is a capability equivalent of 100 aircraft.' The Minister commented that 'by the time we get to the acquisition decision it might be decided that less aircraft can achieve that capability and they may be phased in over a longer period as well.'⁵ An issue that may influence the final number of F-35s purchased is the ongoing development of Unmanned Combat Air Vehicles (UCAVs).
- 5.7 One of the claimed design attractions of the F-35 is that it will be an 'open architecture aircraft'. This means that it will be capable of being continually developed and new design and technological enhancements will be capable of being added as these become available. The Minister suggested that Australia would need to decide on which 'block' status it would start purchasing in.
- 5.8 The first production aircraft have been set for 2008, and 2011 is the US Air Force initial in service date. The customer base includes the US Air Force (1763 units), US Navy (480 units), US Marine Corps (609 units) and the Royal Air Force and Navy (150 units), and with export orders the total production is expected to exceed 4500 units.

Capability and cost

- 5.9 The F-35 is described as a fifth generation aircraft powered by a single engine and incorporating stealth design. The combat radius is expected to be over 600 nautical miles (1100 kms) and its speed is rated at supersonic with some sources specifying Mach 1.4+. The aircraft will carry weapons internally which adds to the stealth qualities. Air Marshal Angus Houston commented:

It will be very very capable in the air combat role, which as you will all recall was one of the most important aspects of the

3 Senator the Hon Robert Hill, Minister for Defence, *Media Release*, Transcript of Australia to Join Joint Strike Fighter, 27 June 2002, p. 1.

4 Department of Defence, *Defence 2000, Our Future Defence Force*, 2000, p. 87.

5 Senator the Hon Robert Hill, Minister for Defence, *Media Release*, Transcript of Australia to Join Joint Strike Fighter, 27 June 2002, p. 2

government's White Paper. But it will also be flexible enough to go out there and conduct strike operations. And I think that all in all it's a great day for the Royal Australian Air Force and I think a very enlightened decision that ensures that we will be able to control the air approaches above our northern land areas and also our maritime approaches.⁶

- 5.10 The F-35 will be made in three variants comprising a conventional take-off and landing version (CTOL), a carrier suitable aircraft (CV), and a short take off and vertical landing aircraft (STOVL) for the US Marine Corps and UK Royal Navy and Royal Air Force.⁷ Defence states that the aircraft 'is characterised by a low observability design, internal weapons carriage, an Active Electronically Scanned Array (AESA) radar, advanced electro-optical and infrared sensors and the ability to employ a wide range of air-to-surface and air-to-air weapons.'⁸
- 5.11 Lockheed Martin is also responsible for developing the F-22 Raptor which is considered by many defence analysts to be the most capable air superiority fighter in the world and the eventual replacement for the F-15. The Lockheed Martin Website indicates that around 339 F-22s are being developed for the US Government.⁹ However, there are reports that the production run could be down to about 276 because of cost caps imposed by Congress.¹⁰ The original production numbers for the F-22 were in the order of about 750.
- 5.12 Air Marshal Houston suggested that the stealth technology and other features of the F-22 will be applied to the F-35 program. Air Marshal Houston acknowledged that the F-22 was too expensive for Australia.
- 5.13 In a combat situation, the US plan is for the F-22 to enter an air space and clear it of all opposition fighters. When air superiority has been achieved, the F-35's would enter the air space and attack the enemy on the ground.¹¹ The F-22 is powered by two F119-PW-100 turbofan engines with afterburners and two-dimensional thrust-vectoring nozzles. These engines are capable of 'supercruise' which enable the F-22 to cruise supersonically

6 Senator the Hon Robert Hill, Minister for Defence, *Media Release*, Transcript of Australia to Join Joint Strike Fighter, 27 June 2002, p. 3.

7 Australian Defence Business Review, *JSF set to fly Australian skies?*, Vol. 21, No. 10, 30 June 2002, p. 12.

8 Department of Defence, Lockheed Martin F-35 Joint Strike Fighter, Fact Sheet.

9 See Lockheed Martin Website: http://www.lmaeronautics.com/products/combat_air/f-22/specs.html

10 Jane's, *Defence Weekly*, Vol. 39, 21 May 2003, Issue No. 20, p. 8.

11 Wilson, Jim, *Flexible Flyer*, *The Joint Strike Fighter puts the best of every 20th century warplane into one nimble and stealthy package*, p. 2.

- without the use of afterburners.¹² It is estimated that the F-22 could transit to combat areas in half the time of contemporary aircraft and the F-35.¹³
- 5.14 Some defence analysts have raised questions about the capabilities of the F-35. In particular, will the F-35 provide a marked improvement over Australia's current combat and strike capability. In relation to air combat, Woolmer asserts that although 'speed is no longer the crucial factor in aerial combat, the F-35 offers no advance over the F/A-18 in other areas of aerodynamic performance.'¹⁴ In addition, Woolmer comments that for all 'other nations involved in the JSF program, the F-35 will be a second tier aircraft behind a more highly performing fighter design.'¹⁵
- 5.15 Kopp suggests that the F-35 as an air combat fighter will be competitive, in certain areas, with F-16C or F/A-18C aircraft.¹⁶ This mainly relates to the modern integrated avionic architecture, combat thrust/weight ratio, and combat radius. The F-35 should provide competitive acceleration and climb performance at similar weights to the F-16 and F/A-18A/C. Kopp, however, suggests that the F-35 performs less well in the supersonic Beyond Visual Range combat regime. This is because the wing planform design is not optimised for this regime.¹⁷
- 5.16 While the F-35 has stealth capability, it is not considered to be an all-aspect stealth capability like the F-22. Woolmer states that the F-35 'has a reduced stealth capability optimised to reduce forward aspect ratio cross section but with no stealth treatment for the rear quadrant.'¹⁸ In addition, if the aircraft is required to undertake long range exercises then it will need external fuel tanks and air-to-air refuelling which will both increase radar cross sections and therefore reduce stealth.
- 5.17 The F-35 is more heavily criticised in the area of its strike capability. Woolmer comments that with a 'maximum speed of Mach 1.5, it is slower than both current RAAF combat aircraft and has little more than half the

12 Lockheed Martin Website: http://www.lmaeronautics.com/products/combat_air/f-22/specs.html

13 Kopp, C., 'Analysis: Lockheed-Martin F-35 Joint Strike Fighter, Part 2, Sizing up the Joint Strike Fighter', *Australian Aviation*, May/June 2002

14 Woolmer, D., 'The Right Choice', *Aircraft and Aerospace Asia Pacific*, 1 October 2002.

15 Woolmer, D., 'The Right Choice', *Aircraft and Aerospace Asia Pacific*, 1 October 2002.

16 Kopp, C., 'Analysis: Lockheed-Martin F-35 Joint Strike Fighter, Part 2, Sizing up the Joint Strike Fighter', *Australian Aviation*, May/June 2002.

17 Kopp, C., 'Analysis: Lockheed-Martin F-35 Joint Strike Fighter, Part 2, Sizing up the Joint Strike Fighter', *Australian Aviation*, May/June 2002.

18 Woolmer, D., 'The Right Choice', *Aircraft and Aerospace Asia Pacific*, 1 October 2002.

radius of action of the F-111.¹⁹ The F-111 has a combat radius of over a 1000 miles. Kopp stated:

Claims that the Joint Strike Fighter is an F-111 class bomb truck are scarcely credible, especially if the F-111 is armed with internal JDAMs or 'small bombs' – a variable geometry wing and 34 000 lb of internal fuel is impossible to beat in the bomb trucking game...The only decisive system level advantage the Joint Strike Fighter has against the F-111 is its use of second generation stealth technology – no radar cross section reduction on the F-111 will make it competitive against this type. In terms of avionics, if the RAAF retains the F-111 post 2020 then Joint Strike Fighter generation technology would most likely find its way into the Pig [F-111] and thus render this comparison meaningless.²⁰

5.18 In making capability assessments about the F-35 it is essential to consider military strategy. The Defence White Paper 2000 states that 'the key to defending Australia is to control the air and sea approaches to our continent, so as to deny them to hostile ships and aircraft'.²¹ Woolmer suggests that if this strategy was varied so that there was greater focus on coalition operations then this would influence the assessment of the appropriateness of the F-35's capabilities.

5.19 Not all defence analysts, however, are as critical of the F-35's capabilities. Stevens, for example, discounts comparisons with the F-22 and suggests that at a price of about \$US 200 million and the fact that Australia will never have to face the F-22 in combat means that it is not needed for the RAAF.²² In relation to criticisms that the F-35 will not have very low observability (VLO) from behind, Stevens responds that 'the F-35 will be vastly less observable than every one of its rivals for the RAAF contract, an air combat advantage of the highest order.'²³ Stevens concludes:

Alone among the contenders the F-35 will leap a generation of technology. It promises to be the only affordable option with the potential to give the RAAF regional superiority in control of the air and strike out to 2030 and beyond, thereby enabling every other combat element of the ADF across the full spectrum of contingencies. Additionally, the F-35 will be capable of making a

19 Woolmer, D., 'The Right Choice', *Aircraft and Aerospace Asia Pacific*, 1 October 2002.

20 Kopp, C., 'Analysis: Lockheed-Martin F-35 Joint Strike Fighter, Part 2, Sizing up the Joint Strike Fighter', *Australian Aviation*, May/June 2002.

21 Department of Defence, *Defence 2000, Our Future Defence Force*, 2000, p. 47.

22 Stephens, Alan, 'An Enlightened Decision? Australian and the Joints Strike Fighter', *Asia-Pacific Defence Reporter*, February 2003, pp. 6-9.

23 Stephens, Alan, 'An Enlightened Decision? Australian and the Joints Strike Fighter', p. 7.

first-order contribution to any allied coalition, anywhere in the world, on day one of any operation.²⁴

- 5.20 During the hearing, Defence reported that what Australia is getting in the F-35 'is something that is far superior to what we currently have, the F/A-18-F111 combination.'²⁵ In relation to combat radius, Defence commented that the F-35 is part of a package that will comprise air-to-air refuelling capability and Airborne Early Warning and Control (AEWC) aircraft which will maximise the effectiveness of the F-35.²⁶ Defence did, however, acknowledge that 'there is nothing that replaces an F-111' for range. The F-111, however, is limited in other respects. Defence stated:

...the other thing that I should perhaps stress is that the F35 joint strike fighter will also be able to use its stealth characteristics to go into the target. The F111 does not have any stealth characteristics whatsoever. In terms of the sorts of threats that are likely to present in the future, the F35 is going to be much more survivable in that environment than the F111.²⁷

- 5.21 Defence suggested that a further virtue of the F-35 was the potential for reduced running costs compared to the present arrangement of running two aircraft. Defence commented that 'we will be able to operate the F35, which is a multirole aircraft, to do what both the F-111 and the F/A-18 do now, and we will be able to do it more cheaply than currently.'²⁸ Defence stated:

It is a marked increase in terms of raw capability and it will be also much cheaper to operate than the current aircraft we operate. I suppose one of the most expensive parts of operating an aircraft system through the years—like the F-111 or the F/A-18—is the in-service costs. The in-service costs of running the aircraft are about two-thirds of the total cost of the whole program, so we anticipate that the costs of operating the joint strike fighter, the F35, will be in the order of 50 per cent of what it costs to operate the current fleet. That is because we are moving into fifth-generation aircraft technology and also because the concept of the aircraft is to minimise costs.²⁹

24 Stephens, Alan, 'An Enlightened Decision? Australian and the Joints Strike Fighter', p. 9.

25 Air Marshal Angus Houston, Chief of the Air Force, *Transcript*, p. 62.

26 Mr Michael Roche, Under Secretary Defence Material, Department of Defence, *Transcript*, p.60.

27 Air Marshal Angus Houston, Chief of the Air Force, *Transcript*, p. 59.

28 Air Marshal Angus Houston, Chief of the Air Force, *Transcript*, p. 49.

29 Mr Michael Roche, Under Secretary Defence Material, Department of Defence, *Transcript*, p.48.

- 5.22 Defence has not made firm decisions as to the type of F-35 variant that would be most appropriate for Australian conditions. At this stage, Defence considers that the best suited aircraft will be the conventional take-off and landing aircraft that will be operated by the US Air Force. Defence stated that 'if we go down that route, there is also the added advantage of having something that is totally interoperable with the United States Air Force.'³⁰
- 5.23 The cost of each aircraft is estimated at US\$40 million with a total estimated procurement cost to Australia of '\$12 billion plus'.³¹ It should be noted that the 2001-2010 Defence Capability Plan indicated that expenditure for Air 6000 is estimated at between \$10.5 and \$12 billion. This expenditure comprises two phases:
- AIR 6000 Phase 1A is more than \$6000m; and
 - AIR 6000 Phase 1B is \$4500 - \$6000.³²

Conclusions

- 5.24 Defence describes air superiority as the single most important capability for the defence of Australia. It is for this reason, and the estimated \$12 billion dollar cost of replacing the F/A-18 and F-111 platforms, that the Parliament must scrutinise Defence over the proposed purchase of the F-35 replacement aircraft. During the hearing, Defence was vigorously questioned about public concerns about the F-35's capabilities. Defence provided reassurances that the F-35, as a package with enhancements to air-to-air refuelling and Airborne Early Warning Aircraft, will be superior to the current platforms.
- 5.25 There appear to be credible arguments that the F-35 will provide enhanced lethality through stealth improvements and through technological progress with radar and weaponry. At the same time, there will be enhanced interoperability with coalition forces that comprise UK and US forces. Although the Committee does note reservations about the capability of the F-35 made by part of the Defence community.
- 5.26 The Government is not required to commit to the purchase of the F-35 until 2006. Between now and this deadline, Defence should wherever possible seek to define its needs more clearly and seek flexibility in the

30 Air Marshal Angus Houston, Chief of the Air Force, *Transcript*, p. 50.

31 Department of Defence, Australian Participation in the Joint Strike Fighter Program, <http://www.defence.gov.au/jsf/index.htm>; Senator the Hon Robert Hill, Minister for Defence, Transcript of Australia to Join Joint Strike Fighter Program, 27 June 2003.

32 Department of Defence, *Defence Capability Plan 2001-2010, Public Version*, p. 60.

contract when and if it is signed. For example, Defence suggested that it is leaning towards a conventional take-off and landing aircraft. Defence may wish to give consideration to the purchase of some vertical take-off and landing aircraft which may be of particular use in possible amphibious operations.

- 5.27 The Parliament's interest in the F-35 program is only just beginning. The next decade will see an ongoing role for scrutiny. Therefore, the Committee will continue its oversight of this large and complex program.
- 5.28 In relation to the cost of the program, it is noted that the 2001-2010 Defence Capability Plan indicated a total cost of Air 6000 at between \$10.5 and \$12 billion. The JSF Website indicates that the total estimated procurement cost to Australia will be in the order of '\$12 billion plus'. The JSF acquisition could be the most expensive Defence purchase in the history of Federation. Firm estimates are required and during the next scrutiny process, Defence will be requested to provide a history of the projected cost of Air 6000 with details of the current and future estimates. Defence will have the opportunity to note any potential increases in the program. The Parliament must be aware of this information before it ultimately provides funding. Defence must seek to contain costs and seek to avoid the inevitable cost increases that are often associated with these types of purchases.

Transition from current platforms to F-35

- 5.29 Replacing an existing defence platform with a new one presents various challenges. For example, in many situations it is desirable to plan the phase out of an existing platform and ensure that capability is not seriously eroded while the new platform is being introduced. Navy had to deal with this issue when the Oberon Class Submarines were replaced by the Collins Class Submarines. There was a loss of operational capability in the transition phase.³³
- 5.30 The F/A-18 aircraft are expected to reach the end of their service life between 2012 and 2015 while the F-111 is expected to reach its life of type between 2015 and 2020.³⁴ Air Marshal Houston stated:

33 Joint Committee of Public Accounts and Audit, *Report 368, Review of Audit Report No. 34, 1997-98, New Submarine Project*, Department of Defence, June 1999, pp. 73-83.

34 Department of Defence, *Defence 2000, Our Future Defence Force*, 2000, p. 86 and 93.

...the US Air Force will be introducing its first aircraft [F-35] in about 2011. And it will reach its initial operational capability by about 2012. I think that we want to get in at a reasonably early stage. But, as you would be aware, most programs, aircraft programs, take a while to bed down. So I'd prefer to be going a little bit later on. And we have to have a look at all of that, but the intention always was to replace the F/A-18 in the 2012-2015 timeframe. And the F-111 in the 2015-2020 timeframe.³⁵

- 5.31 The main challenge for Defence is to ensure that the F-111 and F/A-18 can be sustained through their life of type and provide a seamless transition to the new F-35 platform. White, however, suggests that Defence may need to retire the existing platforms earlier and introduce a stopgap measure. White states:

...the RAAF is having second thoughts. The F/A-18 upgrade is looking problematic, and recent wing cracks in the F-111, though now fixed, show how hard it will be to keep it flying until its 50th birthday. So it is looking for ways to replace one or both of these aircraft much sooner within a few years.³⁶

- 5.32 White suggests that the RAAF is planning to solve this problem through leasing interim aircraft, although he is concerned that capability could be lost through this solution. The *Australian Defence Business Review* (ADBR) commented that 'a future place in the RAAF for the Super Hornet and/or the Lockheed Martin F-22 remains a distinct possibility, however, in the likelihood Australia's 'bet' on key future JSF development/delivery milestones comes unstuck, or additional uncertainties arise in regard to the achievement of the full 'life-of-type envisaged by the RAAF for either the current F/A-18 Hornets, or the combined F-111C/G fleet.'³⁷ Similarly, the *Asia-Pacific Defence Reporter* commented that it 'is obvious that the RAAF must either lease or buy an interim fighter to bridge the gap between the exit of its F/A-18s, and possibly also its F-111C/Gs, and the probable introduction of the F-35 to operational service in 2016-17.'³⁸

35 Senator the Hon Robert Hill, Minister for Defence, *Media Release*, Transcript of Australia to Join Joint Strike Fighter, 27 June 2002, p. 6.

36 White, H., 'New Fighters all very well, but we have to stay airborne in the interim', Australian Strategic Policy Institute, 4 July 2002, Reported in Sydney Morning Herald.

37 Thomas, T., 'JSF set to fly Australian skies?' *Australian Defence Business Review*, Vol. 21, No. 10, 30 June 2002, p. 13.

38 Kainikara, Sanu, 'RAAF needs interim fighter to bridge the JSF delivery gap', *Asia-Pacific Defence Reporter*, February 2003, pp. 36-37.

- 5.33 During the hearing, Defence confirmed that the first production aircraft will go into service with the US in 2008 and the first deliveries to Australia of the F-35 would be about the 2012 timeframe.³⁹ Defence stated:

The committee can have a fair degree of confidence that the way this program is running—and thus far everything we have seen is that the program is going exceedingly well—means we are basically going to have the aircraft in reasonable order and in reasonable time. I do not think that we are going to have the huge delays that have bedevilled previous projects. However, we are looking at all that in great detail.⁴⁰

- 5.34 Defence addressed claims that an ‘interim’ aircraft might be needed in the event that the F/A-18 was withdrawn sooner than expected or delivery of the F-35 was delayed beyond 2012. Defence commented that by 2005 ‘we are going to be in a position to know precisely how long we could keep the F/A-18 going.’⁴¹ Defence acknowledged that ‘the 2012-15 planned withdrawal date is based on quite old data’ and that there were ‘risks in terms of the transition period.’⁴² Defence stated:

People keep raising the issue that we will need an interim. I would resist that unless our strategic circumstances demand it at the time. I would resist that because the best way for Australia is to have a smooth, seamless transition from what we have now into what we are going to in the future. We do not have to make any decisions at this point. There is a lot of speculation at the moment out in the community, but we are going through, in a very rigorous way, all the information available to us. We will give advice to government in 2005 as to the best way to proceed for the future. You can feel very confident that there will be a rigorous process and we will come up with the best decision for Australia.⁴³

Conclusions

- 5.35 The management of multi-billion dollar defence acquisition projects is highly complex and often subject to delivery slippage which affects capability and often has cost implications. Defence is undertaking a ‘rigorous’ examination, due by 2005, of the transition from the F/A-18 to

39 Mr Michael Roche, Under Secretary Defence Material, Department of Defence, *Transcript*, p.53.
Air Marshal Angus Houston, Chief of the Air Force, *Transcript*, p. 48.

40 Air Marshal Angus Houston, Chief of the Air Force, *Transcript*, p. 58.

41 Air Marshal Angus Houston, Chief of the Air Force, *Transcript*, p. 52.

42 Air Marshal Angus Houston, Chief of the Air Force, *Transcript*, pp. 52 and 55.

43 Air Marshal Angus Houston, Chief of the Air Force, *Transcript*, p. 59.

the F-35. The F/A-18s are due to be phased out at the beginning of 2012 and the delivery of the F-35 begins in the same year. Many defence analysts suggest that an 'interim' fighter will be needed as a stop-gap because of fatigue to the F/A-18 and invariable delivery delays in a program as large and complex as the F-35.

- 5.36 If transitional problems do arise in the purchase of the F-35 then this will have the potential to undermine Australian air superiority. The Committee will await the advice Defence provides to Government in 2005. It is an extremely important issue and must be managed carefully. In the lead-up to the 2006 sign-on date, Defence must ensure that every option is taken to ensure a smooth transition. The Committee will pursue this line of examination in the period prior to 2006.

Australian industry involvement

- 5.37 A possible added benefit of Australia's involvement in the JSF SDD is the potential for Australian industry involvement. The Minister reported that 'Defence will now start negotiating the terms of Australia's involvement in this phase of the project, with a view to ensuring maximum Australian industry participation.'⁴⁴ At the same time, the Minister acknowledged that the choice of the JSF 'was primarily driven by the capability of the aircraft' and 'then we looked to the best opportunity for Australian involvement.'⁴⁵
- 5.38 Defence is working with the Department of Industry, Tourism and Resources (DITR) 'to ensure Australian industry opportunity for participation in the JSF program.'⁴⁶ A JSF Industry Advisory Council has been formed to advise Defence and DITR on plans and strategies to pursue JSF work. Defence stated:

There is an industry advisory council chaired by Mr Ken Peacock, formerly of Boeing, which comprises both industry and government representatives and a range of industry capability teams that we are facilitating. We already have, I think, 81 Australian companies who are named in the global project arrangement set up in the US to facilitate the release of technology.

44 Senator the Hon Robert Hill, Minister for Defence, *Media Release*, Australia to join Joint Strike Fighter Program, 27 June 2002.

45 Senator the Hon Robert Hill, Minister for Defence, *Media Release*, Transcript of Australia to Join Joint Strike Fighter, 27 June 2002, p. 8.

46 <http://www.defence.gov.au/jsf/>

There are already 26 requests for quotations—RFQs—that have been issued to Australian companies, and 20 technical assistance agreements. There is a very significant range of Australian companies that have been engaged at the earliest possible stage.⁴⁷

- 5.39 Within the Defence community, there are some reservations about the extent to which Australian industry will benefit from the JSF project. The Australian aerospace industry currently has a one percent share of the aerospace market. It is estimated that if Australia can achieve this figure for the \$400 billion dollar JSF project then that will amount to about \$4 billion worth of work.⁴⁸ The *Australian Defence Report* commented that ‘while Australia’s aerospace industry may have one percent of the world market most of that is in the civil aviation market and it is not certain that industry’s current skills and capabilities are readily transferable to a military aircraft program.’⁴⁹ The *Australian Defence Magazine* reports that Lockheed Martin has stated:

...suppliers and sub-contractors will be selected competitively on a best value for money basis. Customer nations won’t be able to insist on a certain level of local industry involvement with the attendant risk of unacceptable cost premiums.⁵⁰

- 5.40 The Australian Industry Group Defence Council (AIGDC) commented that the JSF program ‘present some opportunities and challenges for the Australian Government, the Defence Organisation and Australian industry.’⁵¹ In particular, the AIGDC stated:

...the Government will have to negotiate hard to ensure the interests of Australian industry are not overwhelmed by the larger investments which have already been made by the United Kingdom, Canada, Denmark, the Netherlands and Italy. Australia should expect an acceptable commercial return on its investment of US \$150 m.⁵²

- 5.41 Defence explained that the JSF program ‘is about allowing Australian companies to become part of global supply chains, so that, rather than

47 Mr Michael Roche, Under Secretary Defence Material, Department of Defence, *Transcript*, p.63.

48 Senator the Hon Robert Hill, Minister for Defence, *Media Release*, Transcript of Australia to Join Joint Strike Fighter, 27 June 2002, p. 2.

49 Australian Defence Report, ‘Industry not so sure of JSF opportunities,’ Vol. 13, No. 11, 27 June 2002, p. 3.

50 *Australian Defence Magazine*, ‘JSF Industry Plan’, November 2002, p. 9.

51 Australian Industry Group, Defence Council, *Media Release*, ‘JSF Involvement: Opportunities and Challenges’, 27 June 2002.

52 Australian Industry Group, Defence Council, *Media Release*, ‘JSF Involvement: Opportunities and Challenges’, 27 June 2002.

having a short production run of maybe 100 aircraft, the companies that do take part in this project and get some share of the action will be looking at a market of at least 4,000 aircraft and possibly up to 6,000 aircraft.⁵³ Defence stated:

The guiding principle in all of this is that this is not about subsidies or support; this is about ensuring that Australian industry has the chance, on a level playing field, to compete against global countries and to get their products out onto the world stage. At this stage the indications are very encouraging.⁵⁴

Conclusions

- 5.42 A constant feature of the JSF program are favourable assertions by Government that Australia's purchase of the aircraft will lead to increased air superiority, no transitional problems between the existing platforms and the entry of the F-35, reduced running costs and the potential involvement for Australian industry in the multi-billion dollar program. There is continued speculation, however, in the Defence community that the JSF program will fall short of its claimed benefits. The Committee's scrutiny of these matters, as part of the 2001-2002 Defence Annual Report, is the start of a process that will continue to intensify. Reassurances about the JSF program will be sought from Defence and presented to the Parliament on an ongoing basis in the lead up to 2006 when a Government decision will need to be made about purchasing the aircraft.
- 5.43 The cost, significance and magnitude of the JSF program requires enhanced reporting to the Parliament. Therefore, the Committee recommends that the Department of Defence should outline in its Annual Report Australia's role in the program, the projected cost, transitional arrangements and progress with Australian industry involvement with the program. The Department of Defence should include performance targets in its reports. Through this measure, the Parliament will be kept informed of key developments, progress, and milestones with the program.

53 Mr Michael Roche, Under Secretary Defence Material, Department of Defence, *Transcript*, p.63.

54 Mr Michael Roche, Under Secretary Defence Material, Department of Defence, *Transcript*, p.64.

Recommendation 5

- 5.44 The Committee recommends that the Department of Defence outline in its Annual Report Australia's role in the Joint Strike Fighter program, the projected cost, lifecycle costs, transitional arrangements and progress with Australian industry involvement in the program. The Department of Defence should include performance targets and objectives in its reports. Subsequent Annual Reports should report outcomes against those targets and objectives.**