

# **Additional comments by the Nick Xenophon Team**

**If you don't think about this upfront you're dead in the water at the back end of this.**

Lt. Gen. Christopher Bogdan, United States Air Force

1.1 I commend my colleague, Senator Peter Wish-Wilson, for instigating this inquiry that I co-sponsored—a review into the F-35 Lightning II (Joint Strike Fighter) was essential—given the incredible importance of this project to national security and to the Treasury.

1.2 Whilst I broadly support the recommendations of the Committee, those recommendations do not go far enough, noting the acquisition's importance to Australia.

## **No Competition**

1.3 In March 2002 Defence made a number of recommendations to the Defence Capability Investment Committee (DCIC) which was considering Australia's New Combat Air Capability. That advice recommended, amongst other things, the DCIC:

- agree that sole sourcing to JSF for AIR 6000 now is not appropriate because of concerns about capability, cost and schedule issues with the JSF project; and
- agree that participation in the System Development and Demonstration (SDD) Phase of the Joint Strike Fighter project is not recommended at this time.

1.4 Unfortunately, 7 months later, in October 2002, the then Government approved Australia becoming a partner in the SDD phase of the JSF Program at a cost of US\$150 million. At this point in time the competition for the AIR 6000 aircraft was terminated.

1.5 Responses provided to the Committee on what happened between March 2002 and October 2006 were shallow (and will be subject of further inquiry).

1.6 The March 2002 analysis output by Defence was of the highest quality and the most prescient. The project has gone on to have significant capability, cost and schedule problems.

1.7 Australia has entered into one of its most expensive capital procurement projects in a manner that lacks both competition and explanation.

## **Capability**

1.8 The committee received submissions and heard from a number of entities and individuals as to the performance of the F-35.

1.9 The opinions expressed to the committee varied.

1.10 Some entities and individuals, albeit with considerable experience, but without access to classified information, suggested that the aircraft could not and would not compete with aircraft that it might go up against in future conflict.

1.11 Others, albeit with access to classified information but with pecuniary interest or encumbered by considerable long term 'buy in' to the decision to procure the aircraft, suggested the aircraft would meet its expectation and provide the Royal Australian Air Force with a regionally superior fighter aircraft.

1.12 The Australian Strategic Policy Institute was confident that aircraft would meet Australia's needs, but expressed doubt in the ability for the JSF project team to achieve full performance in an acceptable time frame.

1.13 These differing opinions, dependant on perspective, leave little choice but to rely heavily on the analysis of the US Director of Operational Test and Evaluation (DOTE), Dr J. Michael Gilmore. Dr Gilmore is a Presidential appointee confirmed by the United States Senate who serves as the senior advisor to the Secretary of Defense on operational and live fire test and evaluation of Department of Defense weapon systems. Dr Gilmore has access to full information and an obligation to present impartial analysis of the program. He has on a number of occasions expressed considerable concerns about the program. As recently as 9 August 2016 he stated:

Achieving full Combat Capability with the Joint Strike Fighter is at substantial risk.<sup>1</sup>

1.14 Regard must be had to this statement. He went on further to elaborate:

While the Air Force recently declared Initial Operational Capability (IOC) with 'basic' Block 3i capabilities, most of the limitations and deficiencies for the F-35A with Block 3i discussed in my FY15 Annual Report and Congressional testimonies remain and will adversely affect mission effectiveness and suitability. In fact, the program is actually not on a path toward success, but instead on a path toward failing to deliver the full Block 3F capabilities for which the Department is paying almost \$400 billion by the scheduled end of System Development and Demonstration (SDD) in 2018. If Initial Operational Test and Evaluation (IOT&E) were conducted today on the aircraft in the Block 3i configuration - with which the Air Force recently declared IOC -the system would likely be evaluated as not effective and not suitable across the required mission areas and against currently fielded threats. If used in combat, the F-35 in the Block 3i configuration, which is equivalent in capabilities to Block 2B, will need support to locate and avoid modern threats, acquire targets, and engage formations of enemy fighter aircraft due to outstanding performance deficiencies and limited weapons carriage available (i.e., two bombs and two air-to-air missiles). Unresolved Block 3i deficiencies in fusion, electronic warfare, and weapons employment continue to result in

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1 Memorandum for Under Secretary of Defense for Acquisition, Technology and Logistics, Secretary of the Air Force, Chief of Staff of the Air Force. Subject: Achieving Full Combat Capability with the Joint Strike Fighter is at substantial risk – Dr J Michael Gilmore, US Director of Operational Test and Evaluation – 09 August 2016.

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ambiguous threat displays, limited ability to effectively respond to threats, and, in some cases, a requirement for off-board sources to provide accurate coordinates for precision attack. Although the program recently addressed some of the Block 3i deficiencies, many significant deficiencies remain and more are being identified by operational test and fielded units, many of which must be corrected if the program is going to provide the expected 'full warfighting capability' described in the Operational Requirements Document (ORD).<sup>2</sup>

1.15 This summary must be of considerable concern.

### **Cost**

1.16 Acquisition costs in this program have been, and still are, of concern. The F-35 program is the US Defense Department's most expensive. The total program costs to the US have gone from US\$233 billion in 2002 to circa US\$400 billion today.

1.17 The program was subject to a Technical baseline review in 2010. Since its conclusion cost overruns have been limited, but the August 2016 comments by Dr Gilmore raised new concerns. He stated:

Despite needing to continue developmental testing at full capacity for at least another year to complete the planned testing of the new capabilities and attempted fixes for the hundreds of remaining deficiencies, the program is already beginning to reduce the number of test personnel and defer required fixes to beyond SDD due to funding constraints.<sup>3</sup>

1.18 He went on further to state:

It appears as though the program is running out of time and out of money to deliver the required full F-35 combat capability in Block 3F before the completion of SDD ... How the program will be able to accomplish the balance of required test points remaining in the time and budget allotted, given historic rates and ongoing personnel reductions, is unclear.<sup>4</sup>

1.19 As a result, the total cost of the program will have to rise again.

1.20 Air Vice-Marshal Deeble indicated at the public hearing that the cost to Australia for the acquisition of 72 aircraft is likely to be \$17.1 billion and the cost of through life sustainment will be a further \$43 billion. Even a small percentage rise in either of these numbers will be costly.

1.21 With respect to acquisition, whilst Australia is immune from many of the cost overruns in the development phase the final price it will pay for each aircraft is subject to change. If Canada were to pull out of the program, or if the US were to reduce the number of aircraft it ultimately procures, the cost to Australia will rise – with no means at present to mitigate this cost increase.

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2 Ibid.

3 Ibid.

4 Ibid.

1.22 With respect to sustainment, Australia will in effect be a 'captured market' when it comes to sustainment. US Air Force Lt. Gen. Christopher Bogdan, the man who has run the F-35 project for the past 4 years, has indicated in the media that, fifteen years after project initiation, the lack of clear contractual language about ownership of technical data and software code has put the Pentagon in a bind and has limited the government's options on how to maintain, upgrade and manage the Pentagon's largest weapons acquisition:

I am playing catch-up now every which way I turn when it comes to intellectual property rights in the F-35 program.<sup>5</sup>

1.23 Because contractors and subcontractors have tight control of the intellectual property—from the software to major components and spare parts—the Defense Department has limited authority, for instance, to integrate new systems into the aircraft or do routine maintenance work in government depots. Lt. Gen. Bogdan said further:

What I'm experiencing is the classic example that if you don't think about this upfront you're dead in the water at the back end of this. We didn't think much about this upfront in the F-35. We didn't write anything into the contract very well.<sup>6</sup>

1.24 The US Air Force C-17 cargo aircraft program offers a cautionary tale. Initially when the program started in the 1990s, the plan was that it would be maintained by the contractor for life, so there was no need to ask for OMIT data:

Years into the program, the Air Force decided that contractor-provided maintenance was unaffordable, Bogdan said. The service sought to move the work into its own depots, and 'when they started doing that, there was no foundation on IP and data rights. There were mighty struggles. I'm experiencing some of that in the F-35 today.'<sup>7</sup>

## **Schedule**

1.25 I share the concerns of the committee with respect to the F-35's schedule, particularly in light of the recent comments by Dr Gilmore. I agree that Australia must accept that a capability gap is looming.

## **Recommendations**

1.26 Australia has entered into a program without due process and finds itself in a position where, it has suffered from the materialisation of capability, cost and schedule risks that it has identified back in March 2002.

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5 Sandra I. Erwin, 'Intellectual Property Fights Par for the Course in F-35 Program' *National Defense Magazine*, <http://www.nationaldefensemagazine.org/blog/Lists/Posts/Post.aspx?ID=2293>, accessed 12 October 2016.

6 Ibid.

7 Ibid.

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1.27 Australia should follow the Canadian lead with respect to this program. Whilst remaining in the program, Australia should run a competition (including a fly off) to sanity check its decision making. Although the Committee found that none of the alternate aircraft would exactly meet Australia's requirements, neither will an F-35 that will not achieve full combat capability.

### **Recommendation 1**

**1.28 Whilst remaining in the F-35 program, Australia should (in cooperation with the Canadians, who are running a competition) re-open and compete for the New Combat Air Capability.**

### **Recommendation 2**

**1.29 In the event that the F-35 wins the competition:**

- **A hedging strategy to mitigate the capability gap that could result from further schedule slippage, as recommended by the Committee, should be sought.**
- **A fixed price contract for the aircraft should be negotiated with liquidated damages to be passed through the US Government to Lockheed Martin in the event that the company does not deliver in accordance with contracted performance or schedule.**
- **The Department of Defence develop a sovereign industrial capability strategy for the F-35 to ensure that Australian Aircraft can be maintained and supported without undue reliance on other nations. This strategy should include the negotiation of intellectual property rights (in similar scope and terms to that which we have for Collins Class submarine sustainment purposes) with Lockheed Martin, prior to any further purchases, which would facilitate such a sovereign capability.**
- **The government endeavour to establish Australia as the Asia-Pacific maintenance and sustainment hub for the F-35.**

**Senator Nick Xenophon**

