



Submission No 25

Inquiry into Australian Defence Force Regional Air Superiority

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Supplemental Submission

to

The Joint Standing Committee

on

Foreign Affairs, Defence and Trade

on

An Inquiry into Australian Defence Force Regional Air Superiority

By

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Ladies and Gentlemen,

Regional Air Superiority is a critical part of the Defence of Australia and your inquiry is both timely and crucial. However, unless certain questions are answered honestly, accurately and completely, your Committee will be unable to reach a balanced and correct conclusion. These questions are addressed in this submission.

Terms of Reference of the Inquiry

The Senate resolved that the following matters be referred to the Joint Standing Committee on Foreign Affairs, Defence and Trade for inquiry and report:

- a. the ability of the Australian Defence Force to Maintain air Superiority in our region to 2020, given current planning; and
- b. any measures required to ensure air superiority in our region to 2020.

Government Requirements

The Government has, in the Defence White Paper 2000 and subsequent Updates, stated that it intends to have the best offensive/defensive air capability in the region, and will not allow a gap in this capability to occur.

Therefore, within a balanced ADF, the RAAF must be able to provide as many options as possible to Government, including, as stated in the Defence White Paper 2000, for operations outside our region.

Strategic Overview

- Our region, as stated in Defence Update 2005 is defined as Southeast Asia and South West Pacific.
- Government direction is that Australia may be called upon to operate outside our region eg. Iraq, and possibly Korea (we are still part of the UN command)
- The future of our region is uncertain. In 1988 no one predicted the end of the Soviet Union. We can not predict the next 10 years, let alone the next 30 years, for that is how long we will have to live with this decision.
- We can not rely on the US. The US may not wish to assist in some circumstances, be unable to help us, at least at the time we need it most or only able to assist later in the conflict, due to being heavily committed elsewhere.

Background

The Defence Capability Plan 2000 in discussing Australia's air combat capability

stated that the F-111 strike aircraft were to be disposed of in 2010 and the F/A-18 fighter/strike aircraft would be replaced in 2012-15

On 27 June 2002 Defence Minister Hill announced Australia's intention to participate in the United States F-35 Joint Strike Fighter [JSF] System and Development and Demonstration at a cost of AUD\$300 million and said that 'the JSF 'is the aircraft for us in the future' notwithstanding that the JSF was a paper aeroplane and no tendering and evaluation had taken place.

He also stated that Australia was looking for a 'capability equivalent of 100 aircraft' but that if this capability could be achieved with less JSF then Australia's purchase number would be reduced.

This decision to proceed with obtaining the JSF, which was and is supported by Defence, has been opposed by some departmental and ADF personnel and other interested and knowledgeable persons in the community. There appears to be a lack of transparency from Defence in the acquisition process.

At the hearing on 31 March 2006 Mr Pezzullo, Deputy Secretary Strategy said 'The White Paper spells out in quite some detail in chapter 8 the air capability goal that the government requires of Defence. It is the ability to protect Australia from air attack and to control Australian air approaches to ensure that operations against any hostile forces approaching Australia would be successful'. This requirement goes beyond what type of aircraft we need to provide this capability, although it does show that the aircraft we choose must be capable of operations in the air to air and air to ground environment. This statement requires that the inquiry accepts that the aircraft is one system in a system of systems, albeit the primary one, which includes AEW & C and tanker aircraft, JORN, air warfare destroyers and ground based air defence, and that the totality of the systems must be the subject of the inquiry.

A Multi-Role Aircraft

Defence has stated that the RAAF needs a multi-role aircraft for the Regional Air Superiority task, but is this the question that needs to be answered. Can one aircraft do both jobs of fighter and strike, or are multi-role capabilities too much of a compromise?

What is multi-role? In the context of our discussion it defines an aircraft that is capable of conducting both air to air and air to surface, both sea and land, operations

By design the F/A-22 Raptor is a multi-role air-superiority fighter with significant air-to-ground capability. From the inception of the battle, the F-22's primary objective will be to establish air superiority through the conduct of counter-air

operations, which includes defeating enemy aircraft and ground based air defences – in other words the enemy system of systems.

The F-35 JSF, as the acronym says, is a joint strike fighter which is a multi-role fighter optimised for the air-to- surface role but with good air to air capability.

The Primary Role of an Air Force

The primary role of the RAAF is control of the air for without control of the air all other air and land operations will be more difficult, and in some situations impossible, to conduct

F-35 JSF or F-22 Raptor

Most of the debate on Australia's Regional Air Superiority has been about which aircraft Australia should obtain, the F/A-22 Raptor or the F-35 JSF and the present solution is for up to 100 JSF – networked and enhanced with JORN, AEW&C and Tanker. But why the F-35 JSF and not the F-22 Raptor? One or the other would still be part of this system of systems.

And the possible enemy would not be stupid – he would target what he can (asymmetric warfare) – weaken one of the systems within the system of systems, and the whole is diminished (ie. target the AEW&C and/or tankers). Networking is important, but if part of the system breaks, the crucial element, the fighter platform, must be the best Australia can buy and it must be able to operate independently if required.

The F-35 JSF

Currently the US plans a conventional take off and landing [CTOL] aircraft for the USAF, a carrier variant [CV] for the USN and a short take off and vertical landing [STOVL] version for the USMC and the USAF. The UK plans to purchase the STOVL for operations from their new yet to be built aircraft carriers.

Dr Stephens, testifying before the Sub-Committee, and supporting the proposal to purchase the JSF said: 'What has not been stressed sufficiently this morning, in my opinion, is the fact that the JSF has been designed from the ground up for network-centric operations. It is going to benefit considerably from developmental work done on the F22—it already has.

Previously, the question was asked: in what domain is the JSF superior to the F22? It was not sufficiently emphasised, in my opinion, that it will be considerably superior in the ISR—information surveillance recognisance—domain'.

During the same hearing the Chief of Air Force stated: 'Let me stress again why the F35 is the right choice: it is a true multi-role stealthy fifth generation strike fighter. It will be, as you have heard, as much a sensor as it is a shooter, and it is well-positioned to achieve effects based outcomes. ... we are convinced that it is the best aircraft to do all the jobs that Australia needs. And it will be at a cost that will allow the balanced development for the ADF of a broad range of capabilities in all environments'.

The F-22 Raptor

Maj. Gen. Daniel P. Leaf, USAF Director of Operational Requirements in a planned submission to the US Defence Secretary said that their 'concept of operations, casts the F-22 in a starring role. rapidly hitting anti-access targets such as advanced air defense systems, weapons of mass destruction, and other capabilities. ... The F-22, because of its all-aspect stealth and ability to cruise at supersonic speeds without afterburner, can rapidly strike such targets without first needing to roll back enemy air defenses. ... No other aircraft will be able to get past intense air defense systems and advanced fighters alike on Day 1 of a future war. ... No target will be inaccessible to the F-22, and its speed and stealth confront the enemy with an "unsolvable problem,'

Air Chief Marshal Houston has said that the F-22 is the best air superiority fighter ever built and that every pilot would want to fly it and a senior USAF officer, who did not wish to be identified, has said that the US Air Force would sell their Grandmothers for more F-22.

Lockheed Martin, builder of the Raptor says 'No fighter in the world comes close to matching the F-22. By every measure, the Raptor represents extraordinary breakthroughs in maneuverability, stealth, sensor fusion - a wealth of parameters that define a new era in fighter capability'.

Concept of Operations

Countries that need to achieve air superiority on their own, such as the US and the UK both plan to use the F-35 as a strike aircraft for close air support [CAS] and battlefield air interdiction [BAI] supported by another multi-role but predominantly fighter aircraft. In the case of the US this aircraft will be the Raptor and with respect to the UK it will be the Eurofighter Typhoon. Australia may also need to achieve air superiority on its own but plans to do it with a single type – the JSF

Gen Jumper, Chief of Staff USAF said that the 'truly transformational F-22 Raptor, with its stealth and supercruise attributes, is touted as the nonpareil platform for establishing air supremacy, quickly attacking ground targets on the move, and penetrating enemy territory deeply and swiftly. Thus the Raptor has star billing in the Air Force's conops, notably those for global strike, global

response, global mobility, and space and C4ISR'. When talking about the JSF, 'we can have the F-22 up there above it, protecting it from surface-to-air missiles or air attacks coming its way,' he notes.

Costs and Availability

When the purchase price for each of these aircraft is discussed the data provided must start from the same base. We do not want average unit recurring fly away costs or even unit fly away costs for one and full programme costs for another. The correct basis for comparison that I have selected is the Unit Procurement Cost [UPC] which is derived from the Procurement Budget appropriated by the US Congress. The UPC is made up of the Unit Flyaway Cost plus that portion of the costs for technical data, training and training equipment, operations and maintenance publications, ground support and test equipment, initial spares and contractor services/charges attributable to each aircraft.

The Pentagon Selected Acquisition Report to Congress dated as of 31 December 2005 shows that the Average UPC for the last four of F-22A aircraft in 2010, at the end of the current USAF production run, will be around US\$126 million. Australia could order now and start receiving the aircraft in 2010 at a possible rate in excess of 20 year at a UPC and possibly at less cost.

The Government Accounting Office Report to Congressional Committees on the JSF dated March 2006 estimated that the Average UPC of a Block 1 JSF available in 2012, would be between US\$125 and US\$137 million. These aircraft would subsequently need to be upgraded to Block 3 Status which, in turn, will need weapon clearance certification programmes to be completed to achieve war fighter status all at an additional cost

If the US is prepared to sell the F-22 to Japan, as has been reported, would they not sell them to Australia. After all, President George W. Bush has said on numerous occasions that Australia is the United States most trusted friend and ally.

At the public hearings held on 31 March 2006 the Chief of Air Force commented that a mix of F-22/F-35 would be great but there are cost disadvantages in operating two types of aircraft.

An additional consideration is that as there is no new aircraft other than ones produced by Russia with the range/payload capability of the F-111, then no matter which aircraft Australia obtained there would need to be an increase in the number and size of tanker aircraft.

Defence have stated that Australia does not have to commit finally to the JSF until 2008. But Lockheed Martin wants the Government to commit later this year to signing a Memorandum of Understanding with them, the Joint Strike Fighter manufacturer. This document, as explained by Lockheed Martin, appears to be a de facto commitment to buy, which would make it difficult for Australia to extricate itself. In addition, on current trends, the US is likely to reduce its planned JSF buy, but not until after the partners have signed the MOU.

Questions to be Answered.

There are those who contend that:

- F-22 not available? – Defence has not asked so we don't know!
- F-22 too expensive? – Defence has not asked so we don't know!
- F-22 is not an all-rounder? – the US will use it as a strike aircraft before employing the JSF and then as an escort for the JSF [see concept of operations].
- Two types means crew/logistical overheads – This could be true but given their similarities in aircraft avionics this should be minimal.
- The F-22 has a growth capability whereas the JSF does not.
- The weapons load/type to be carried by the JSF has been reduced to keep costs down and thereby reducing its capability

Until these questions are answered honestly, accurately and completely the Committee will be unable to reach a balanced and correct conclusion. An up to date capability comparison paper needs to be provided for the F-22 and the F-35 in both the air to air and air to ground roles.

Possible Solution

A mixed fleet of F-22 and JSF. Australia should buy the F-22 at the end of its run Year 2010 to meet the requirements of AIR 6000 Phase 2A. It will be the cheapest time to buy, kinks ironed out and no capability gap.

Then buy Block 3 JSF in Year 2014, to meet the requirements of AIR 6000 Phases 2B and 2C. Only a small number of F-18s would need to remain in service until the JSF was ready, in the strike role, thus eliminating the need for more centre barrel replacements.

This solution gives us the best air combat capability, with no capability gap which is precisely what Government guidance dictates.

Conclusion

A detailed analysis would show that it could be more cost effective, with less risk involved, and provide a more capable regional air superiority, if Australia were to

purchase a mix of F-22 Raptor and F-35 JSF aircraft

- all achievable within a balanced force;
- operating two different platforms whilst marginally more expensive, would provide infinitely greater capability and options for Government; and,
- purchase platforms at their lowest cost later in production run, and when already in widespread service to avoid surprises and risk.

As the renowned Greek General and Historian Thucydides said so many years ago 'War is not so much a matter of weapons as of money, for money furnishes the material for war'.

If you want regional air superiority you will have to pay for it and we need one that is second to none.

