



## **Submission No 38**

### **Inquiry into Australian Defence Force Regional Air Superiority**

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**Retaining Air Superiority in the Australian Context for Future  
Generations**

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Regional Air Superiority.**

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DEFENCE AND TRADE DEFENCE SUB-COMMITTEE**

## Retaining Air Superiority in the Australian Context for Future Generations – Where is the Analytical Rigour and Due Process?

### Introduction

The acquisition of a replacement fighter and strike aircraft for the F/A-18 and F-111 aircraft, apparently with a single platform, as stated by the Defence White Paper 2000, comes at a time when many significant changes in global politics are occurring. The most alarming and potentially the most destabilising of those changes recently occurred right in our backyard, namely the announced North Korean nuclear test. Suddenly, our part of the world is graphically reminded how low intensity conflicts may not always be the only challenge future generations of Australians may face. Both the Korean nuclear test and the future capability of this nation's air defence security should be of considerable concern to all Australians who are interested in guaranteeing that future generations live with similar levels of freedom and security as enjoyed by current citizens. We owe it to those future generations to make sound defence acquisition decisions now so that their children will have the best chance of retaining our national identity.

Combine the uncertainty brought on by that nuclear test, with the Max Blenkin article in the 10 October 2006 *The Australian* newspaper, revealing claims that the "RAAF 'won't need' interim jet", and the 2 November Air Force newspaper, page 3 article, discussing basing options for the Joint Strike Fighter (JSF), and one is forced to question if the level of acquisition decision making rigour producing these apparent decisions has been appropriate given the scale of both the fiscal and capability issues involved.

*The Australian* Blenkin article and the Air Force News both quote the Deputy Chief of the Air Force (DCAF) as stating that the ADF will buy the F-35 JSF. The question the Joint Standing Committee, and through the House and Senate, all Australians should be asking is, "Where is the in-depth analysis to support this apparent commitment to purchase the JSF, a single aircraft to undertake two vastly different and complex roles into an uncertain strategic future?"

Without any tangible evidence demonstrating objectivity and impartiality in evaluating all potential contenders, this apparently foregone commitment to the JSF appears to lack substance and should be cause for considerable concern.

There are two fundamental concerns here; has the correct acquisition process been followed in eliminating other contenders, and as a sub-set of that question, has the operational analysis been exhaustively applied to all potential contenders to ensure that the optimum capability is being procured to fulfil the two demanding roles of air defence and strike?

In reaching this apparent decision to buy the JSF, if compromise has been required in the delivered capability, then the strike role must be made subordinate to the air defence requirements for the following reasons. Air dominance, air supremacy or the old fashioned term of air superiority must remain the cornerstone to which all other desirable capabilities must be subservient if a single multi-role aircraft is being seriously contemplated to replace both the F/A-18 and the F-111. The last seventy years of military history have repeatedly demonstrated that without the ability to control the air environment when and where required then all military operations are placed at risk and, thereby, the nation is placed at risk.

How is it that we can apparently commit to a JSF purchase when the capability analysis and acquisition risk management procedures purposefully designed to guarantee the integrity of the decision making process appear to have been arbitrarily deleted by very senior Departmental management earlier in the decade?

A second major concern, possibly flowing from the first, must be the Minister's Aerospace Adviser recently confirming that no request for price or availability of the F-22 Raptor, the USAF choice for Air dominance, has been made to the United States. Yet the F-22, in open literature, is credited with superior performance to the JSF in all respects at near to, or even perhaps at, price parity. The F-22 is even openly acknowledged by the JSF manufacturer and the United States Air Force to be superior and it is already in operational service delivering unsurpassed levels of fighter and strike capability to that nation.

Combine that advice with very clear and disturbing evidence that high level F-22 classified briefings by specialist teams from the United States offered to senior Australian military officers were either curtailed or cancelled because of a stated or implied very clear preference for the JSF. These rejected briefings were available in the critical timeframe of 2001 and 2002 when minds appear to have inappropriately closed regarding due process consideration of alternative options – impartiality and objectivity by senior Defence decision makers seems to have been lost at this critical stage in the evaluation process.

### **Analytical Rigour and Due Process<sup>1</sup>**

Earlier in this decade the Department's acquisition decision making bureaucracy apparently ignored its own procedures and made an arbitrary decision to pursue the JSF knowing that cost, schedule and performance were yet to be validated and without thoroughly considering alternative options. What drove this agenda to ignore due process and analytical rigour and how was the decision to purchase the JSF reached?

Evidence suggests that critical decisions were taken in 2001 and 2002 that set in train a process that could only produce one outcome. Did questionable decisions by the then executive elements in the DMO causing repeated deviation from the authorised due process lead to this decision? Was the decision imposed on the DMO from elsewhere in Defence or Government? These questions may be impossible to answer because the Defence leadership team, many now retired from Defence, probably left an untraceable chain that places today's decision makers in an unenviable position with inadequate analysis, options and leverage to now correctly address the AIR 6000 requirements.

Reliable sources claim that in mid 2001, Under Secretary Defence Materiel (USDMM) redirected the efforts of the AIR 6000 Project away from the due process of the approved Project Management Method (PMM) and required the newly appointed project director in capability staff to work directly to him, thereby making null and void the Project Board of appointed senior staff officers that had steered the capability analysis and evaluation process since the inception of AIR 6000 in 2000. DMO would later claim, via Lt Gen Hurley's response to the JSCFADT inquiry into 'ADF Air Superiority to 2020', that DMO had changed its acquisition method based on the recommendations of the Kinnard Defence Procurement Review, a correct statement for subsequent decisions, but the authorised process at the time was the PMM. No direction or publication of a revised method was known to the Project Board members in 2001 when USDMM redirected the actions of the project.

The PMM was based on the Prince 2 method, a highly disciplined and documented process for which the Tanner James Company conducted training of the then DAO and later DMO from 1998 to the present day. The process was developed directly in response to an ANAO recommendation (1997) that a single project management process be selected and implemented by the DAO for all capital acquisitions. PRINCE 2 was selected for trial by DAO. After 18 months of training and implementation the then Deputy Secretary Acquisition (Mr Garry Jones) accepted the process and directed the implementation of PMM across the organisation. The term PMM was coined by the DAO to allow incorporation of other methodologies into the defence process.

Evidence suggests that USDM was not well informed of project management methods on his appointment to the then DAO in 1999 and the same evidence reveals that he repeatedly spoke of his disaffection with the PMM process which he claimed was too cumbersome and allowed too much decision making by military practitioners. In fact the Project Boards consisted of multi-service and civilian (APS) one star/SES officers representing the various disciplines of the procurement process. Again the evidence indicates that USDM was not prepared to take advice from such groups and advised his intention to replace them with advisory Governance Boards of external and internal representatives at one and two star level. These governance boards were introduced in late 2001, but after a successful appeal to USDM with an alternate organisational construct he agreed to allow both boards to function at different levels and with different responsibilities. Nevertheless USDM did not allow the AIR 6000 project board to continue to carry out its PMM prescribed functions. The critical analytical rigour so essential to reach a well reasoned decision appears to have been consciously circumvented. Why?

The evidence shows that in 2002 the AIR 6000 contender documents were not analytically evaluated, but rather a ministerial submission was made to join the JSF SDD program by the investment of some A\$300 plus million dollars. An option of a fighter other than the JSF (ie an alternate to the preferred) was not prepared for Government consideration in accordance with Commonwealth Procurement Guidelines but has recently been directed by the Minister in 2006.

Any experienced capital acquisition practitioner knows that the initial capability analysis and evaluation phase is critical to successful project outcomes. The process must be open-minded and analytically disciplined, based specifically on the capability requirement defined and approved by the appropriate authority. The process must be void of bias or personal preferences. It becomes increasingly difficult to retrospectively address decisions made early in a project that discount other alternatives. If the USDM did not subscribe to this process then, by so doing, he has placed the project staff and the government in a difficult position. The evidence suggests that the decision to go with the JSF had little comparative analytical underpinning.

I hope the JSF will be as good as the manufacturer obviously presented in the early pre validation phase leading to the truncated decision to go with that aircraft. If not, I hope the acquisition process will have identified all the potential risks to achievement of the required capabilities and have mitigation strategies in place to allow the Commonwealth to pursue alternate options were they required. However, the recent statements attributed to DCAF regarding the decision to purchase the JSF would suggest a determination to proceed with the critical source selection decision devoid of open government debate on alternatives.

My concerns expressed thus far are not based on an operational appreciation of the relative capabilities of the F-22 versus the F-35 but rather the observed lack of due process in the initial source selection process as directed by the then USDM in 2001 - 2002. The analytical comparative analysis of all potential contenders was apparently bypassed in deference to

commitment to the JSF SDD program and the F-22 was never included; this decision being based apparently on questionable expectations of unaffordable unit cost.

As for the apparent JSF decision, one can only hope that through the work of the Joint Standing Committee a return to the formal acquisition process will still happen, where all credible options can be evaluated in a rigorous, analytical, impartial and transparent manner. It is not too late given the gravity of an inappropriate decision and the known slippages in the delivery schedule of the JSF. The real question at this point is can this work be undertaken by the same organisation that has already demonstrated an inability to retain objectivity and impartiality in the source selection process?

### **Operational Considerations**

Looking now at some of the operational considerations and more serious questions arise. Why are we planning to spend billions upgrading the F/A-18 which faces expensive structural fatigue rebuilds as a stop-gap measure when a replacement exists now that appears far superior to both the current fighter and its apparent replacement? The F-22 is in production and in operational service providing unsurpassed levels of air defence and strike deliverables.

One should not be surprised that the F-22 is superior. Many of its electronic systems are identical or superior to the JSF including electronic warfare and networking data links, also the F-22 has two engines, thereby more electrical power and electronic cooling capacity, greater radar aperture, more thrust to weight, less supersonic drag, more manoeuvrability, super-cruise (which enhances both engagements of, and escape from, known threats), superior stealth technology and a similar ability to carry and release precision munitions. Given this open-sourced information has been public knowledge since the late 1990s, then why has the F-22 been roundly and consistently rejected by the Department as a potential contender for at least the last six years?

How is it that the much touted tyranny of distance that helped drive the two engined F-111 and F/A-18 procurement decisions all those years ago can now be swept aside and suddenly we are comfortable with a single engine jet with limited range when we still live on the same island surrounded by the same vast oceans and with the same limited internal operational basing infrastructure?

For those who think a small handful of air refuelling aircraft will give us an operational capability I recommend they think again. Current planning for air refuelling aircraft addresses as little as one quarter of the operational need. Equally, a similar complement of Wedgetail AEW&C surveillance and control aircraft will not overcome the shortfall in stealth, speed, sensor reach and agility exhibited by the JSF in comparison to the F-22.

Moreover, there is one overriding consideration - whether the JSF is actually cheaper than the F-22 is irrelevant; the JSF is not capable of doing the job in our nearer and wider regions awash with advanced Russian fighters and thus cannot guarantee regional air superiority.

***The fundamental point must be that no matter how many JSFs are procured, if the aircraft cannot guarantee control of the regional battlespace at a time and place of our choosing, then what utility does it have for this nation's defence? Can the JSF assert dominance over Su 30 variants? The very clear answer is no.***

Whilst DCAF denied the intent in *the Australian* interview, an interim purchase or lease of strike aircraft, when we already own and have spares to support our existing strike aircraft, the F-111, for at least another decade, makes even less sense than the current decision to withdraw that aircraft by 2010. Yet my sources indicate that the Air Force is still actively engaged in negotiations to obtain the Super Hornet as some form of stop-gap measure. My understanding is that Project Archangel is aimed at delivering the F/A-18F/G Super Hornet as an interim measure pending the final delivery of the JSF.

In his recent evidence to a Parliamentary committee, the Chief of Air Force stated that he was concerned about 'not knowing what it is that he does not know' regarding ongoing operations of the F-111. That should cause everyone to be concerned. Apparently, because CAF says they 'don't know what they don't know about the F-111', this is sufficient justification to get rid of the aircraft premature to its previously authorised planned withdrawal date. Yet the Aerospace Adviser to the Minister recently acknowledged that a fully combat-capable JSF will not be available until around 2018. Even before the recent North Korean action, the F-111 decision was questionable. It makes even less sense now.

We already own the F-111 and yet people apparently are seriously considering the Super Hornet as some form of a stop-gap measure. At what additional cost does this interim Project Archangel come with and what happens to the platforms when the JSF eventually arrives?

Good risk management is all about knowing what you know and finding out about those things you don't know, then putting in place risk-mitigation strategies that ensure the risks do not materialise. The F-111 operates under this strategy in the only true Ageing-Aircraft Program in the ADF. We know the aircraft backwards and we know the risks.

The germane question is 'can we support the system at acceptable cost and risk?' DSTO and Industry can definitively answer that question provided those who know are allowed to provide frank and honest advice without fear of recrimination or retribution.

Valid questions that must be asked are; why did we spend almost a billion dollars during the 1990s upgrading the F-111 aircraft's avionics and weapon systems only to retire them prematurely? Why did we spend hundreds of millions of dollars procuring life-of-type spares for the F-111, only to now discard them? Why did we spend millions of dollars recently installing a specialised test facility that guarantees airframe integrity, only to now scrap it? Why did we go to all the cost and effort of moving the aircraft's deeper level maintenance to civilian contractors to now walk away when they are delivering levels of aircraft availability not seen for many years?

For those who claim the F/A-18 can temporarily fulfil both roles into this uncertain future, then I simply say, think again! The F/A-18 fleet cannot currently meet its peacetime fighter availability requirements and further costly structural and enhancement programs will diminish this availability even further. If Project Archangel is the intended solution then I say please think again. This interim decision, if true, has all the hallmarks of the decision making process that appears to have led us down the JSF path, ignoring all other routes including the path that provides a more cost effective truly capable air defence capability with much lower risk.

## Conclusion

The F/A-18 / F-111 replacement decision will set the direction of this nation's air defence and strike capability for at least the next thirty years. If we get it wrong our children and our children's children will suffer the consequences. There is no single Defence acquisition project that has the potential impact of the F/A-18 / F-111 replacement program on this nation's future safety. Yet the evidence clearly shows that the decision making process leading to the apparent decision to select the JSF was fundamentally flawed. Due process and rigorous evaluation of all options was deliberately and inappropriately truncated.

To send our personnel into a fight with an inferior platform deliberately purchased when a demonstrably better alternative may have been available is questionable decision making at best. It is not too late to bring honesty and integrity into this debate and apply analytical rigour against all credible options as should have been undertaken five years ago. Such a rigorous analysis should, at most, only take 6 to 12 months to complete, particularly given the material that is now available. We still have time for this analysis because, even if the JSF is the eventual outcome, apparently it will not be ready for operational service until 2018 according the Minister's adviser. If JSF is not the outcome, other options which appear to be more cost effective and lower risk are available well within that timeframe.

The final and most probing question is who can be entrusted to undertake a truly impartial, objective, rigorous and transparent review of these past apparently secret decisions. The time is right for the government to unshackle the current leadership of the DMO and DSTO and allow a transparent analysis by Defence in conjunction with Australian industry to identify the most capable and sustainable solution for the security of our future generations.

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*Peter Criss, AM, AFC, joined the RAAF in 1968 and flew over 5000 hours in Sabre, Mirage and F-111 aircraft. At the tactical level he was both a squadron and wing commander of F-111 units. As an air vice-marshal he was Air Commander Australia in 1999 and early 2000 during the successful East Timor operation. Before involuntary redundancy in late 2001 he headed a study for CDF into the management of preparedness in the ADF. He is a graduate of the inaugural Australian College of Defence and Strategic Studies (1995), Co-author of 'The Leading Edge: Air Power in Australia's Unique Environment', SDSC ANU, 1990, distinguished graduate of the United States Air War College (Commandant's Prize, joint recipient - 1988/89) and graduate of the RAAF Staff College (1983).*

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<sup>1</sup> In my critique of the DMO / DM analytical rigour and due process applications I make frequent reference to evidence from another reliable source. That source was the former Acquisition Member on the AIR 6000 Project Board and this officer's information has previously been presented to the Minister cc the Chair of the JSCFADT Air Superiority Inquiry. I hold this retired officer in the highest regard; a gentleman who consistently demonstrated throughout his unblemished professional military career standards of integrity and scrupulous ethical behaviour that set the standard in the RAAF at that time