



Submission No 3

Inquiry into Australian Defence Force Regional Air Superiority

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**SUBMISSION TO JSCFADT JANUARY 2006.
INQUIRY INTO AUSTRALIAN DEFENCE FORCE REGIONAL AIR
SUPERIORITY.**

Overview:

1. History teaches us that with a resource rich nation, in times of rapacious world demand, that a strong defence force is the best deterrence against any foreign designs on those resources. Unlike earlier conflicts, today there is short lead time from perceived threat to conflict, meaning a constant state of preparedness is necessary which anticipates with a long term plan how to deal with any adverse strategic situation which arises.

Any period of years with ‘gaps’ in major equipment are fraught with risks...an invitation in fact.

2 geographic considerations must be included in any planned acquisitions:

a the sheer size of our continent

b the distance to get to targets in the extremes of the region..eg India and China. So, long range, deep strike and multiple payloads should be top of the list in selecting equipment.

Consider the flight time just to get from Amberley AF base to the North West Shelf.

3 other nations in our sphere are acquiring sophisticated Russian Sukhoi aircraft together with sophisticated guided missiles and support equipment ...AWACs and refuellers, plus powerful navies

Malaysia, India, China, Vietnam and Indonesia.....not always countries we see eye to eye with.

Note: they are not standing still.

they are adding and evolving . So it is entirely foolhardy to buy equipment that is only equivalent or marginally superior. We have been successful in the past by buying the most advanced in order to maintain a clear lead for long periods, and thus deterrence.

Some will speak of an ‘arms race’ ..but they will...didn’t stop Singapore’s move to defence self reliance.

Cost factors:

The next air combat purchase in question is to cover several decades. Therefore cost will be amortised over a considerable period of years. Further, if the selection of the *correct* equipment exceeds budget the orders should be spread over several budgets i.e. buy in batches. During this period where we are enjoying strong budget surpluses the taxpayer would I believe accept higher defence expenditure for this purpose *provided* it was explained properly.

I believe too, considerable goodwill exists between Canberra and Washington to secure favourable treatment. PM to President negotiations. It is in USA’s interest if we have strong and useful deterrent in our region. Self reliance is in their interest.

Comments on the present proposal.

1. Early retirement of the F-111:

a. cost:

Defence appears to be exaggerating the 'age' case against the F-111 when it's interim replacement, the enhanced F/A-18, is not all that much younger and has been subject to much greater stresses (as a fighter) over its life, culminating in the need to replace the centre barrel which not only is very expensive but takes up to one year to strip down and rebuild the whole aircraft. Moreover, the F/A-18 is planned to continue in service after all this extremely expensive maintenance and upgrade for only 5 further years.

The F-111 is currently at its most lethal and best condition of its entire career.

It has not suffered from the snapping of wings, imploding fuel tanks etc the Airforce warned us of in dec'03 JSCFADT enquiry!!!

The F-111 reliability was proven at major exercises such as Red Flag..up with or exceeding the latest aircraft from all western nations.

The F-111 fleet is currently receiving the advanced stand off weapon the AGM 142....only to phase the aircraft out in 5 years from now. Is this sound decision making?

The real cost to maintain the F-111 into the future needs to be analysed on a proper and independently verifiable basis,

eg start with the actual costs to maintain...not upgrade...these planes in the last 3 years.

Note: covering airframe, engines and systems etc (not new upgrades.)

Likewise Comparative costs with the F/A-18 . Why have these not been made public?

It is really hard to accept Defence figures(for F-111) of \$ 2.5 -3.5 Billion over 10 years to 2014..a billion variance sounds like the figure was plucked out of the air by someone trying to justify the premature retirement decision.

It must be emphasised that the F-111 has a huge inventory of spares at its disposal at little or no cost...

If age is such an issue why did Defence buy the Seasprites with 35-50 yr old airframes?

b. performance

The F-111 has outstanding and unique features which an enhanced F/A-18 and certainly the Orion APC-3 cannot match:

It has superior speed, range and payload nothing in the region can match.

Airforce argue that the enhanced F/A-18 supported by Tankers and AWACSSs can do the same job.

It would seem if they are to be believed, a whole armada needs to be sent out to try to do the job of an F-111...thereby exposing these highly expensive new assets to the enemy. (with their sophisticated Sukhois)

In any case we will only have 5 tankers...in a crisis that could mean one in service, one in say in Perth leaving 3 to support the armada from Williamstown to target... so how far would they actually reach..? How effective in reality?

It must be remembered that an F-111 could also attack supported with the same tankers and AWACS so it could reach much, much further again.

Defence wrote to me on 21/11/05

“ the question of payload has less relevance in contemporary thinking on strike. Rather than a large aircraft delivering many bombs, it is Defence’s goal to have aircraft able to reliably deliver a smaller number of very effective, precision weapons, from a stand off range”

**This statement, in the context of the argument, is an insult to one’s intelligence when Defence knows full well that with a higher payload of precision weapons, more targets can be attacked on the one sortie...saving huge costs and huge reduction in exposure to risk.
eg aircraft A with 12 such weapons takes out 300% more targets on the one sortie as does e aircraft B which carries only 4.**

Another ‘furphy’ is Defence’ regular reference to the HUG F/A-18s proven performance in Iraq...but there was no opposition there at all..! Also ranges there were relatively short.

Even rank amateur observers can conclude the propeller driven Orions cannot fill the role of the F-111. If it can let’s buy more Orions!

Also, Defence needs to make available results of recent exercises involving he F-111 and particularly its ability to penetrate modern defences at very high speed but extremely low level. My informal information is that the F-111 is *very* hard to defend against. What is the Navy’s input on this ? what hope of survival is there against a saturation attack on the fleet by precision missile equipped F-111s?

2.it seems unquestionable, that the premature retirement of the F111 awaiting the JSF creates a serious gap in our front line defence.

3. Suitability of the JSF.

I realise the JSF is not actually ordered but this is the recommended selection of Defence.

Defence sought to replace both a deep strike specialist aircraft as well as an air superiority fighter with one aircraft. Was this the correct criteria to start with? Or, wishful thinking. Someone in Defence has convinced everyone that we can save vast sums by buying one plane to do two specialist jobs instead of two.

Is this the same philosophy as applied to the Seaprite naval helicopter selectionwhich *still* is not in service and has cost multi millions more than planned to adapt it to additional roles.

Based on a criteria of choosing the best deterrent, maintaining superiority in the region and having the performance and strike required , the JSF fails this criteria for the following fundamental reasons:

1. stealth.

It does not have full stealth and is therefore vulnerable to modern Sukhoi adversaries

2 range.

It has short range, compared to F-111, F-15 F-22 etc requiring costly and vulnerable tanker support.

3 speed ...

does not super cruise and is only on par with legacy jets. nowhere near as fast as F-111.(so important in getting in and out of hostile territory)

4 payload...

very poor can only carry 2 x smart bombs without compromising its limited stealth.

5. Manoeuvrability:

only on par with legacy F/A-18, F-16

6 radar:

Smaller and less powerful than very latest Sukhoi

7 cost:

we would need to get early build models to meet F-111 retirement deadlines.

this means:

paying a higher price and having to add expensive upgrades early in its life. Recent reports indicate a rapidly escalating unit price, due to development costs in trying to meet design specifications.

8 .the JSF is not in production and is unproven.

This plane was never designed for the purpose we require.

It will not give us the regional superiority required over the several decades to come.

**note: at previous hearing, Airforce emphasised that future attack v. defence air warfare is all about*

attacking the adversary Beyond Visual Range (BVR) i.e. getting in the first missile shot. There is therefore a contradiction in selecting an aircraft that does not have full stealth, and only a small radar, making it vulnerable, when such an aircraft is available and in production.

How to ensure air superiority in our region to 2020

1. Do not proceed with JSF. Select the F-22 Raptor instead:

The primary comparison advantages of the F-22 are:

- **cruise supersonically**
- **longer range(50% more fuel**
- **full stealth...much more survivable**
- **faster -more agile**
- **50% more payload**
- **Twice radar capacity**
- *true air dominance*

**The F-22 is proven, flying now and has known cost.
It has the best facility for future upgrade growth.**

note: the US Airforce recently matched a single F-22 against 5 current front line F-15C s. (equivalent to Sukhois)The F-22 took out all 5, without the F-15s getting in a single shot! One of the F-15 pilots was quoted 'I didn't even get to see the F-22'

2. Desist with withdrawal of F-111 and continue all planned upgrades well into future. As the F-111 already has incorporated the MIL -1760 weapons bus and support system it makes it ideal for even more advanced standoff weapons like the JASSM and SLAM-ER, due in the next couple of years

Enter into study on new engines with a view to making F-111 supercruising and more economical.

This aircraft would be ideal for follow up strike, anti naval forces etc, after F-22 has dealt with initial sophisticated defences.

3. Do not replace F-18 centre barrel, assuming F-22 would be delivered before this was required. This would be a massive saving.

Buy F-22 in batches of say 20 as budget allows.

Finally, consider that due to its stealth and performance, the F-22 is likely to survive engagements and therefore its attrition rate will be considerably lower than Sukhoi, JSF and Legacy aircraft. Support aircraft would also be less vulnerable as F-22 takes out the opposition. So there would be a saving in numbers required and thus considerable cost saving.*

**further thought on costs:*

If the JSF, with its limited stealth, is chosen ahead of F-22, consider the cost of losses where, for example, the 'armada' runs into the enemy's latest Sukhoi and their support aircraft. Say 20 JSF go out and even though the mission is accomplished, losses are 7 JSFs one AWAC and one tanker. (defence has not argued that this cant happen) This loss of aircraft, the lack of them for new missions, loss of pilots, would amount to a considerable amount of money, (around 1.5 billion) or, equivalent to a fair number of *fully stealthy* F-22s which would likely suffer *no* losses at all. Better to acquire the superior product in the first place, even in a lower number of units.

It seems crystal clear a fleet of F-22s together with evolved F-111s would ensure air superiority in our region to 2020 and well beyond.

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