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**March 27th 2016**

**To:** The Foreign Affairs, Defence and Trade Committee  
Australian Senate  
PO Box 6100  
Parliament House  
Canberra ACT 2600  
Transmitted by email to: fadt.sen@aph.gov.au

Inquiry into The Planned Acquisition of the  
F-35 Lightning II (Joint Strike Fighter).

**Subject: Response to Dr Andrew Davies answer to Question Taken on  
Notice Concerning the AirPower Australia ZOCT (table)**

**By:** Mr Marcus Kollakides

In response to Dr Andrew Davies written response to AirPower Australia's ZOCT (table) he makes it difficult to know who's opinion he is giving. In Hansard for he says he is appearing in a private capacity and then proceeds to give evidence using terms like "we". This is important because his group, the Australian Strategic Policy Institute, ASPI) is part of what is termed the wider church of the F35. Nonetheless I was grateful to Dr Davies in his appearance for reminding us of the central cost issue, what he terms the "death spiral."

One also has to have respect and sympathy for Dr Davies trying to do his part for his cause in the same knowledge vacuum of Lockheed Martin concealment as the rest of us are battling.

### **1. The Cost "Death Spiral"**

Taking up Dr Davies' issue of cost, then in ascending order the all up unit price of the F35 jackass is according to:-

- Then Chief of Airforce, Angus Houston in 2004 put the cost at about AUD **\$40M per F35**
- US General Bogdan in 2016 speaking with a straight face but not specifying in what currency he was talking of said about **\$90M per F35**
- If we take our own optimisitic current Defense estimate of AU\$17.1 Billion for 72 x F-35 we get a bargain of AUD **\$237M per F35.**
- PM Abbott and Defense Minister Johnston did the numbers in 2014 announcing the total cost (including the AUD \$3.2 B approved by Labor in 2009 for the first 14 x F35 14 jackasses ) at AUD \$27.6B for a total 72 jackasses which would be AUD **\$383M per F35.**
- March 2016 the US Government Accountability Office (GAO) stated for the US\$120B+ spent so far, only 164 F35's have been produced resulting in a cost of US\$730M per plane. Or AUD **\$972M per F35.**

The US GAO estimate is the most thorough and by US law required to be credible. Taking their figure for our 72 F35 aircraft we get an **all up figure of AUD \$70 Billion.**

Personally I think we could buy a couple of small countries for that and which would be a much better deal.

Dr Davies was so right about the cost 'death spiral.'

If this happened in the private sector where the Corporations Law, Fraud and other prudent controls operated then people would be going to jail.

And to think this project was originally called the "lightweight affordable fighter." But who gives a flying fig about taxpayers dollars ?

**On to Dr Davies finding the eZOCT 'unhelpful'...**

If Dr Davies response to the ZOCT has one value above all others, it is that it exemplifies the entire approach of the extended F35 church towards the Senate Inquiry. Specifically to provide as few of their own metrics as possible, especially comparative analytics against their own alternative F22 aircraft or adversary aircraft such as the ZOCT accomplishes. Instead the F35 folks do this:-

- They claim to have cost / effective' . So we get only half the equation and avoids the whole point of cost / benefit.
- Rather than produce their own metrics, they treat the F35 like a Dutch auction where all critique is focused on the anti F35 campaign and we are supposed to big against ourselves. They 'question' this or that. They "doubt" this or that. They 'challenge' this or that. They have 'been informed' of this or that. So we are supposed to waste time and effort fending off their rubbish critiques so they can avoid any and all possible scrutiny and just waffle on pompously with what is not evidence but inadmissible hearsay and un-comparative un-scientific bull.
- The pro F35 campaign is a tiresome insult to the Senate. If they had a decent aircraft, a reputable business plan, instead of a blank cheque, or a programme that kept its promises, or anything remotely credible, they would be falling over themselves to demonstrate they do in hard facts. But they don't and they can't.

## 2. Metrics.

**(i)** Dr Davies claims the ZOCT has only 'characteristics' not metrics.  
So lets get it straight.

- Newton's Second Law of Motion states that the acceleration of an object as produced by a net force is directly proportional to the magnitude of the net force, in the same direction as the net force, and inversely proportional to the mass of the object.
- Accordingly Minkowski developed his theory for Maxwells highly relevant equations on electromagnetism and in the process he gave consequential impetus to the postulations arising from Einstein's Theory of Special Relativity.
- Which brings us back to Dr Davies. The Oxford Dictionary, not yet being a subsidiary of Lockheed Martin, defines "metrics" as "*mathematics & physics relating to or denoting a metric, the metric equation of Minkowski space-time*"

***Quod erat demonstrandum ! The ZOCT is definitively solid metrics.***

Therefore its only natural Dr Davies finds the ZOCT 'unhelpful'.

**(ii)** Newton's Third Law of Physics holds that for every action there is an equal and opposite reaction.

So it is that the ZOCT charts the known metrics for adversary aircraft reactions to the first F117 stealth and reactions to subsequent types such as the F22 and F35.

Sir Humphreyesque argument has no place in metrics. Dr Davies contends that individual ZOCT metrics like situational awareness are not fair or they are selective or

inappropriately weighted. Statistically however the ZOCT metrics results are valid. The cumulative  $\Sigma$  functions for each metric including situational awareness validate by comprehending each constituent element, helmet, sensor fusion etc and thereby confine any error factor to credible arithmetic limits. To adopt Dr Davies suggestion which amounts to cherry picking isolated criteria in which he believes the F35 score would improve, would be to open up the margin of error exponentially by causing each constituent error factor to be multiplied by the next such that it would be statistically invalid.

The ZOCT has no opinion or bias, it simply documents the known metrics. For Dr Davies to try to shoot down the ZOCT, which is simply the messenger, is inappropriate. ZOCT metrics are valid. If anything shoots down the F35 it is itself.

### **3. Our Acquisition Planning Failure.**

**(i)** Perhaps we should just sell South Australia to pay for the F35. Perhaps we have no right to complain when in truth the only thing which is a bigger failure than the F35 is ourselves.

In Strategic Defense Acquisition terms we failed from the outset to stipulate what Dr Davies rightly calls for, metrics. Normal people in positions of responsibility cannot understand why we did not issue a metricated specification sheet stipulating what we required. How many engines, range, speed etc. Even doctrinally we failed to stipulate whether we required a true air dominance fighter to ensure our regional air superiority with or whether we would settle for whatever Lockheed Martin wanted to sell us.

**(ii) The result of Defense's non managerial, spectator and cheer squad role is abrogation leading to a transfer of responsibility for national security from Defense to DFAT.**

**When we strip away Defense spin and un-metricated waffle about 'combat capability needs', whatever the hell that means, it is simple:-**

- **The F35 cannot defend Australia and ironically for its proponents it will ensure that everything in and under the sky, namely themselves, the ADF and the whole DoDefense will be redundant.**

**(iii) Failure to Comparatively Evaluate.**

Even worse than our failure to specify required metrics for the F35 we fail to benchmark it against adversary aircraft. In fact the church of the F35 assiduously avoids such evaluations.

Only the ZOCT provide this essential analysis and is therefore the single most important decision making tool in the F35 dialogue.

Sadly the ZOCT demonstrates our utter failure in acquisitions. Our have ensued because **our top brass prevented** the capable evaluation people we do have from doing their job. The fact is the Lockheed Martin business model would not have passed evaluation.

**(iv) Acquisition of Your Family Car:** Senators would be more adept at buying their own family car than would Defense. You would figure out your own metrics for your requirements. You would determine your requirements in advance. In clear metrics. How many seats, what price, how many doors etc. Then go shopping.

You would not come home afterwards with a two-seater for your bemused family of five then tell them the performance standards had been "refined" and three members of the family would have to get bus passes or move out.

You would certainly not send Defense out with a **blank cheque** to buy your family car and then congratulate them when they came back with a garbage truck.

#### 4. Withdraw from the Lockheed Martin Business Model

Its one thing to have the F35 church, lobbying for this aircraft. It is quite another to delegate our Defense Acquisition to them. It is a really a shocking conflict of interest.

Our failures to stipulate and assess are our new *modus operandi* and logically that will lead to the F35 fiasco repeating itself time and again across all Defense acquisitions.

Parliament has a responsibility to reform the way we do business with Lockheed Martin. To re-establish responsible planning and management which conducts prudent purchasing procedure in an environment of transparent separation of the military industrial complex from our Defense and acquisitions.

#### 5. The No Alternative Argument

(i) We have heard the zero sum gain nonsense of F35 supporters:-

- *We must be a good ally to the US and buy the F35.*

**Rubbish.** The truth is we will fail as allies if we rely on the F35 because we will not be able to secure ourselves or our region.

- *We need the F35 for local industry participation.*

**Rubbish.** Local industry would participate no matter which aircraft we purchase.

(ii) **The Superior Alternative is the F22**

It is one thing for Dr Davies to treat F35 critics as heretics whilst he challenges the ZOCT metrics of the Russian and Chinese Aircraft, even if his challenge fails because their stealth equations are in the public domain.

It is quite another thing for not just Dr Davies but the whole F35 church to decline to furnish the Senate with F35 metrics to back up their claims as measured against its own sibling, the Lockheed Martin F22.

For Dr Davies to come out and say

*"Some of the input assumptions that underpin the allocated scores are questionable. For example, the VLO ('stealthiness') of the F-22 in radio frequency is probably inferior to that of the F-35."*

What is this word, "probably." ?

And why does Dr Davies selectively hedge his bets with just "radio frequency" ? Why

not infra red as well ? These are rhetorical questions of course. The F35 stealth or VLO is documented as double inferior compared to the F22. The answer is obvious.

**(iii) Myths about Non Export Availability of the F22.**

There is no US legal barrier to the F22 being sold to Australia. The US admits the F22 is superior and required to protect the vulnerable F35. Why are our own people telling us to buy the lesser aircraft ?

**(iv) The F35 threatens ANZUS.**

Even if there was a Congressional barrier, which there is not, what kind of alliance would ANZUS be if it refused us the best possible aircraft ? What kind of Government would we have if we went ahead and said ok we will accept the distant second best F35.

The reason the F35 threatens ANZUS is because ANZUS requires us to do two things:-

**(a)** Stand on our own two feet. Which the F35 will not enable.

**(b)** Consequentially to consult with the US to inform that we will be unable to honour our ANZUS Treaty obligations if we purchase the F35 instead of the F22.

**6. Lockheed Martin and its church of the F35.**

Lockheed Martin exists solely for profit. It is not responsible for our national security. We are. Lockheed Martin and its broad church of acolytes are pushing the lesser of its two aircraft for one reason only, because the F35 is more profitable than the F22. Which explains why the F35 gravy train is so long and has led so many astray. Anyone who says to the contrary, is either dishonest or a moron.

That so many people such as myself, who has zero vested interest in the F35 or any other acquisition project, are taking so much trouble to oppose it, speaks volumes.

**7. Rebuild Defense Acquisition or Lose the Next War.**

**(i) Old wood, new wood and rotten wood.**

- Over the protracted timeline F35 proponents have made it far as CDF. Accordingly many highly competent people who believed in metrics and scientific assessment have been pushed out. They may be old wood but that is valuable experience and they need to be gotten back.
- New wood, new people, with engineering, science and especially management skills need to be brought into a new Defense Acquisition organisation.
- The rotten wood has to be quietly lopped.

**(ii)** Some of our own people through incompetence or ambition have put our national security last. They need to get the chop, before they pass the bug on to the next generation of good people such as our newly appointed chief of RAAF who has inherited this mess. It may not be the Canberra way, but the chop does happen in business frequently and we expect it to when there is manifest failure. Why should anyone in Defense be immune from the same level of responsibility ?

## **8. Parliament Must Intervene for the Future Fighter.**

If there is one F35 certainty it is non partisan and across all political persuasions. Everyone has been misled. There is no shame in having been misled, unless we fail to correct it with bi-partisan unity and resolve.

Parliament must resolve to diplomatically reform this F35 failure by informing Lockheed Martin it is in breach of contract, that the F35 product is not fit for the purpose for which it was claimed to be and that to preserve the substance of the contract we are seeking specific performance via acquisition of the alternative F22.

Yes it may be unprecedented for Australia to stand up to the US the military industrial complex but if we squib from doing it then what does that make us ? Yes we may upset some Lockheed executives and their pork barreling Congressman but our Parliament does not work for them. Our paramount duty is to secure our national security and this bi-partisan action is what is required.

## **9. Conclusion.**

The have faith and trust us, church of the F35 is in stark contrast to we heretics with our annoying facts and metrics.

It is 23 years since the US Defense Advanced Research Agency (DARPA) launched what is now laughably recalled as "The Common Affordable Lightweight Fighter project" from whence the F35 originated.

So there is a long history of high priests of the F35 successively burdening their successors with responsibility to safeguarding past reputations to get this barely flying jackass to pay off.

The F35 is a faith based belief system whose main armament is a complete arsenal of Sir Humphreyesque hyperbole and avoidance comparative metrics.

The ZOCT does not damn the F35. It just shows the plane up for what it is. After that the F35 damns itself. If that is "unhelpful" to F35 supporters then they only have themselves, the Lockheed Martin business model and its jackass F35 aircraft to blame.

- Revise the contract and demand the F22.
- If not and we falter, then cancel the contract and buy the next best, the Rafale and ask Japan if we can joint venture the ATD- X.
- Better yet, get the F22