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A Question of Choice and Strategy – Australia's F-35 Acquisition

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"You don't drive your Ferrari to work every day, you only drive it on Sundays. This is our 'high end' [fighter], we want to make sure we don't use it all for the low-end fight".

—Charles Brown Jr

As the F-35 assumes the role of Australia's core fighter jet debate around its acquisition rages. The F-35 should be seen as a necessary acquisition that fulfills a 'jack of all trades, fighter' role for the RAAF. Limited by resources and size the F-35 was the best, and largely only, option available to the ADF that guaranteed long term defense interests.

Having an <u>estimated per unit cost of \$126 million</u>, ballooning to <u>\$475 million</u> per unit when factoring in lifetime support, it would appear the Australian Government has opted for a garage of 72 Ferrari's to replace the F/A-18 Classic Hornet – but is this necessarily a mistake? Critiques regarding <u>cost</u>, <u>capability</u> and <u>relevance</u> of the F-35 program contain some merit in their arguments. Even the USAF, who house the world's most advance air platforms, estimated <u>that</u>, <u>despite the F-35</u>, <u>by 2030</u> they would "not [be] <u>capable of fighting and winning against ... potential adversary capabilities"</u>.

The first question to ask is one of choice – what was the alternative to the F-35? In light of cost and timeline concerns commentators have suggested a wide range of alternatives. These ranges from airframe alternatives such as the F-22 to waiting until 2030 to take advantage of unmanned autonomous systems. In terms of F-22's, removed from the fact that the <u>US have never exported a single airframe</u>, the costs associated with restarting their production was so high that even the USAF deemed it unreasonable. Other options, like F-16s or F-15s, would certainly be more cost effective however they are not up to scratch capability wise. As 4th generation platforms the F-16 or F-15 are unsuited to the modern battlespace where stealth and sensor integration is becoming critical.

Future unmanned systems will be crucial force multipliers for the RAAF, however they are also not a reasonable alternative to the F-35. As Chief of Airforce Mel Hupfeld has noted, systems such as Boeing's Loyal Wingman, of which Australia may purchase three, inherently form part of "a manned-unmanned team approach". As such, it has been specifically designed to work alongside a manned fighter platform, not in replacement of one. This synergy, which relies on sensor integration and advanced programming, is inherently suited to the



F-35 when compared to a more traditional fighter such as the F-16 due to a focus on interoperability and ISR capabilities. Perhaps beyond 2040, when it is first expected the RAAF <u>will consider an F-35 replacement</u>, the technology and trust in unmanned systems will see them as a viable alternative to manned 5th gen platforms – but that is not the case currently. To make the most of developing unmanned technology the RAAF requires the most advanced fighter available, which arguably was (and is) the F-35.

The second major question to address is one of strategy. As early as 2006 Lockheed Martin's Vice President of Strategy predicted that;

"That the F-35 would be four times more effective than legacy fighters in air-to-air combat, eight times more effective in air-to-ground combat, and three times more effective in reconnaissance and Suppression of Enemy Air Defenses"

In essence if an aircraft can handle the high end of the conflict spectrum it can subsequently handle the low-end. As a small force the RAAF does not have the same luxury of variety that the USAF enjoys. When our entire F-35 fleet could be housed on a single US aircraft carrier our jets should fulfil our most pressing strategic objectives at the cost of lesser goals. Designed expressly for high-end, high-tech conflict Australia's F-35 acquisition suggests a priority shift away from low intensity conflicts, such as the Iraq and Afghanistan campaigns in which the F/A-18 served. While they may be used in similar counter-insurgency operations, that is certainly not their key role.

The <u>2020 Defence Strategic Update</u> makes clear that military modernization in the Indo-Pacific has accelerated faster than envisaged. Regional actors such as China are increasingly acquiring and building their own advanced jets, as seen with recent <u>J-16</u> and <u>J-20</u> advancements. Subsequently the future battle space is unlikely to replicate the environment of air supremacy experienced in the Middle East. Therefore the procurement of jets tailored to this dynamic makes little sense. Acquired long before the 'drums of war' began beating, the F-35 is a tangible indicator of the ADF's long term concern of fighting a modern war – as it should be. While the F-35 can contribute to the 'low-end fights' experienced in the Middle East, outboard weapon stations and a 25mm cannon see to that, this would fulfil Gen. Browns concern of daily driving our Ferrari's. To prevent this the 23 strong fleet of F/A-18F Super Hornets will likely act as the daily driven 'Ford' to the F-35s weekender 'Ferrari' until their end of life in 2030. Beyond this point it is possible, as ASPI suggest, that <u>a further F-35 squadron may follow</u>. However, should the ADF still desire aircraft suited to the low-end fights of the past two decades, which have a focus on CAS and strike, alternatives such as the F-15EX will need to be explored.

With the modern airspace beginning to contain advanced fighter platforms, such as China's J-20 and Russia's PAK-FA, Australia has kept ahead by acquiring the F-35. With national strategy preparing for the possibility of high-intensity conflict as an immediate concern the F-35 stands out as the most preferable choice. That the F-35 program was <u>likely designed as a replacement for the F-16 and F-18A/B</u>, and that it presents a significant jump to 5th generation capabilities, signing on to the F-35 program was a sensible way to progress Australian airpower – albeit in an environment with few other choices.

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