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Subject: WWW Submission: 4. Air Force/Air Power [SEC=UNCLASSIFIED]

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Submission: What kind of armed forces should we develop?

Proposal

This submission proposes that the RAAF pursue a reduced acquisition of 70 F-35A and complement this force with up to 30 long-range, deep-penetration strike, reconnaissance, and electronic warfare fighter-bombers to replace the lost capability of the F-111. Such a proposal is fiscally feasible, given that the aircraft would largely be a MOTS solution.

The geo-strategic imperative:

While asymmetric and 'non-traditional' threats will continue to proliferate, Australia cannot rule out the possible re-emergence of a major state-led threat. All indicators point to the global geo-political balance becoming increasingly unstable and thus the ADF will need to be prepared to operate in a highly contested regional order. Something it has not had to do since WWII.

Major Threats:

- The rise in economic, military and political power of Asia
- The consequences of climate change and;
- The threat from rogue states and terrorism

The capability rationale:

Australia's current air combat dynamics and the inadequacy of 4th/4th+ generation fighters:

- With the F-111 and F/A-18A/B, Australia has had a flexible air combat force. Such a force provides a more survivable mix given that if one type has problems that force a grounding, the other type can continue to operate.
- The F-111 has also provided an unchallenged regional deterrent capability
- The F/A-18F with the addition of AWACS, KC-30 and JASSM will provide an adequate interim capability, but will not provide the highly survivable and deterrent capacity required in the long-term. It lacks stealth, range, payload, manoeuvrability and sensor capabilities to operate successfully within the contested environment of the future.
- The Typhoon, Rafale and Gripen all suffer the same limitations. Further they don't fully integrate within the US force structure, something which has become of increasing importance.

The inadequacy of the current 5th generation fighters:

- The F-22 is not available for export, even if it was, it would be downgraded, its internal payload is inadequate for significant strike operations and it is cost prohibitive.
- The F-35 while an adequate replacement for the multi-role F/A-18s cannot fulfil the long-range strike role, even with support from AWACS and KC-30s.
- Its limitations are that it is single engined - a significant flaw when operating over the ocean - its limited payload, speed and range for the strike role. It can be outrun and out-maneuvred by SU-30s in close combat and over distance.
- It is not optimised as a first day of war aircraft and thus highly vulnerable and strategically limiting in the volatile environment of the future.
- Only having one fighter type will also leave Australia vulnerable if a technical/mechanical glitch forces the type to be grounded.
- Because it is to be fielded in such large numbers worldwide, potential adversaries will have well developed counter tactics.

- Furthermore it will not provide the deterrent factor needed by a lowly-populated and vulnerable Australia.

The inadequacy of the UCAV:

- As demonstrated by the Globalhawk, UCAVs will be more costly than anticipated and will not be able to replace all capabilities that manned platforms provide. Its sensors are too narrow and would struggle with targets of opportunity, unlike manned-aircraft that have shown a great grasp for such roles in Iraq and Afghanistan.
- While UCAVs would have good endurance and persistence, given the level of technological progress required, and the advanced sensors needed, the costs incurred would not make them as expendable as planners would have first hoped.

The Solution

This submission supports the pursuit of an option that has so far been neglected: the development of a MOTS solution.

- One tailored to the defence needs of not only Australia, but also of the US, UK and possibly other close allies.
- Australia needs to retain a regional pre-eminence, the US and UK also need to replace their legacy strike aircraft in the same timeframe, the potential for a joint-collaboration is strong.
- What is needed is a dual-engine, first day of war, deep-strike bomber, with high levels of stealth, long-range, high-speed, and a large internal payload.
- Such a bomber, given these characteristics would be highly survivable, ideal for both high-intensity deep-strike missions against complex IADS, and low-intensity persistence 'bomb-truck' roles as commonly seen in Iraq, Afghanistan.
- Such a bomber would also be fiscally feasible as it could leach off and use most of the technologies already developed in the F-22, F-35 programmes.
- The design could be informed by: F-22, F-35, FB-22 and UCAV designs.
- Systems/Computers/Cockpit layout, like EOTS and JTRS could be propagated from: F-22, F-35
- The two engines either: Pratt & Whitney: F-119, F-135 or GE/Rolls Royce F-136
- The radar could be development of the Northrop Grumman: AN/APG-81, AN/APG-77.
- In addition to deep-strike, other mission could include reconnaissance, electronic warfare and SEAD/DEAD missions. In such roles it would replace a long-missing link in the USAF since the EF-111 Raven's departure and provide an alternative to Australia seeking a purchase of EA-18G.

Thus key parameters if it's to adequately replace current western capabilities and exceed the rising capabilities of Russia and Chinese derived technologies will be:

Crew: 2
 Engines: 2
 Speed: Mach 2.5+
 Range: 5,000km
 Ceiling: 65,000ft
 Internal Ordinance Capacity: 12,000kg+

Benefits:

- Cost effective and low-risk as it would use systems, design and expertise developed from F-22 and F-35
- High level of joint collaboration between Level 1 partners: US, UK and Aus, lowering costs, given the construction of higher numbers
- Highly possible and attractive as it fills a strategic gap that no other capability can yet fill.
- Provides Australia with a cost-effective, survivable, and flexible mixed fleet, able to respond to all combat scenarios, fit seamlessly within US force structure and provide a regional deterrent.

I agree to my submission being published on the Defence website

I agree to my submission being quoted in the Community Consultation Report