

The Super Hornet Purchase:

A good save to a poor plan?

Robert Marlow

One of the more contentious ADF projects in recent years is the \$A6.6bn acquisition of 24 Boeing F-18F Super Hornets, with much press speculation that the Minister acted against the advice of the senior leadership in the ADF and the Department of Defence. The Super Hornets are to fill the gap between the F-111 and F-18A going out of service and the new F-35 Lightning II Joint Strike Fighter fully entering service. The senior ADF leadership had previously steadfastly denied any gap existed and thus this sudden purchase has surprised many. A senior RAAF officer was quoted in *The Age* in August 2007 observing that the Service's senior leadership: 'always had the view that we could get through without an interim, or what we now call a bridging, capability'.

Of more concern the project to replace the F-111 and F-18A was originally funded at around \$A12-15bn, the largest single project ever in Australian defence history. The new Super Hornet purchase, combined with the further F-18 life-extension projects required will add an extra \$A7.6bn to this. This 50-60 per cent increase is the largest defence equipment cost over-run for several decades, very substantially more than the Collins Class submarine cost increases. This unexpected over-run not only imposes a significant opportunity cost on the ADF in diverting money from other potential and perhaps more important uses, but also calls sharply into question all the Department of Defence management reforms of the last decade.

Sound strategic planning?

Originally the F-18A was to be replaced between 2010 and 2015 and the F-111 between 2015 and 2020. In mid-2002 the Department dropped plans to have a traditional tendering approach to buying the replacement aircraft and decided to acquire the F-35 JSF off the drawing board, sight unseen. Competitive pressures were deemed unnecessary to getting the best deal for, as Minster Hill noted in June 2002, RAAF advice was that the JSF was the cheapest option of the seven to eight potential alternatives available.

In mid-2003 another sudden decision saw the F-111 withdrawal date accelerated to 2010 and a new plan hurriedly

adopted to operate just the F-18A fighters supported by new tankers, new airborne early-warning aircraft and new long-range missiles until the JSF became available from 2012. The rationale for the precipitate F-111 withdrawal proved controversial and after some debate about a suitable basis, the reason eventually settled on was the potential for the aircraft to have structural problems beyond 2010.

Perhaps surprisingly, the new plan now called for an aircraft type with known serious structural problems, the F-18A, to be relied upon instead. However, in mid-2006 just six months before the initial airborne early-warning aircraft were to be delivered it was suddenly discovered that the project, previously deemed by the Department of Defence as exemplary, was now running three years late. With this shock and delays in the other supporting tanker, missile and F-18A upgrade projects it became rather improbable that the F-18A could replace the F-111 in 2010 as originally planned. Moreover, by now the F-35 JSF project was also suffering setbacks.

Defence originally advised in mid-2002 that the JSF would be in service in Australia from 2012 however, almost immediately, the project hit problems. The aircraft's estimated weight was determined to be excessive leading to the first flight of a production-representative aircraft being delayed from mid-2005 to May 2008. The project was then completely re-baselined in late 2003 with cost increases and schedule slippages incorporated. In 2003 the JSF version Australia is buying was expected to be initially operational with the US Air Force in mid-2011, but by mid-2006 this had slipped to mid-2013.

Worse, the US Government Audit Office has released several worrying reports. The most recent, in March 2007, focused on the numerous technical risks remaining, the significant cost over-runs, a steadily slipping flight test program, major software development uncertainties, and the generally immature nature of the program. This report further noted that internal Pentagon organisations were also worried about cost growth and anticipated further program delays. The Australian Government, having excellent political networks in Washington, will have a more complete picture but given the F-18F Super Hornet purchase this insider

perspective can be assumed to be no better than the public face. The JSF is now the second most expensive aircraft option (after the F-22 Raptor) to replace the F-111 and F-18A, the highest risk alternative, and the aircraft type with the most uncertain delivery date.

The result has been that the RAAF is under pressure at both ends: the complex plan for the F-18A to replace the F-111 has proven unachievable and the JSF is expected to be delayed further. If the USAF is at best planning to have its first operational aircraft in mid-2013, it does not seem likely that the RAAF would reach a similar stage until 2015 at the earliest – and this appears high risk. The Department of Defence's original plan would have led to five or more years when the nation would have relied completely on a steadily diminishing number of F-18A aircraft.

From Australia having about 100 fighter and strike aircraft in 2010, the fleet would have rapidly fallen away. Indeed without the recently decided F-18A life-extension program the F-18A fleet may have needed to be retired in 2015 as planned leaving the nation with no fighter or strike aircraft at all. According to a recent Commonwealth Auditor-General report the F-18A life-extension program will cost some \$A1bn and will mean that F-18As will be undergoing structural repairs right up until being replaced by the JSF. This is not a particularly cost-effective approach, but necessary in the face of the original poor strategic plan.

A sound recovery from a bad situation?

Given the high risks in sustaining the RAAF's fighter and strike fleets, and the uncertain quality of departmental advice as exemplified by the sudden early-warning aircraft surprise, it is not unreasonable for the Government to seek alternatives. The Government as customer and owner of the ADF is obviously sufficiently concerned to expend considerable money and some political capital to make sure Australia sustains an adequate fighter and strike force through the next decade. In this regard, the Government seems to have less than full-confidence in departmental advice and there appears a crisis of sorts in Australian civil-military relations.

The Department of Defence appears to have chosen to disregard rising concern in the Government and the wider Australian community and not adjusted their 2003 strategic plan to accommodate the new realities. Long-range plans need constant monitoring and adjustment to reflect new developments, but in this case this seemingly was not done. Traditional risk management processes would have suggested a different approach to that followed by Defence. The plan has demonstrably failed in not addressing the concerns of the Government of the day who, by their actions, are absolutely convinced of serious impending troubles.

The deficiencies of Defence's original strategic plan are, however, mostly addressed by the purchase of the Super Hornet. A recent study by the American Center for Strategic and Budgetary Analysis found that the Super Hornet offered comparable performance to the JSF until about 2020, after which intended upgrades to the JSF may make it superior. The Super Hornet is also noticeably cheaper. Moreover, the Super Hornet is fitted with the Harpoon anti-ship missile; by contrast the JSF has no anti-ship missile capability as well as not having two engines – an undesirable feature for long

over-water flights. There are also some extra financial and risk benefits. Buying the Super Hornet today allows later more properly developed models of the JSF to be acquired later, including the superior beyond-2020 models. The first aircraft off the production line will be both the most expensive and the least proven. Being able to wait will mean a better product with fewer problems is eventually delivered, and less expensive rectifications are needed later.

Doomed to repeat all this again?

The fundamental cause of the \$A7.6bn cost blowout is the poor strategic planning undertaken by the Department of Defence. Blaming the Minister for departmental failings that happened before his watch is somewhat mischievous and misleading. The early retirement of the F-111 when combined with the risky JSF purchase has had an unfortunate cumulative effect. If the F-111 was still kept in service until the second half of the next decade then the ADF may have got away with a JSF purchase that remained within budget. Conversely, if a less risky platform than the JSF had been chosen by the RAAF then problems would probably not have arisen as well. The combination of the F-111's undoubtedly premature retirement and the decision to procure the JSF has proven very expensive for the taxpayer, increasing costs by some \$A7.6bn. Is the JSF now the most expensive option rather than the most cost effective?

This unplanned expenditure, and the JSF purchase generally, are often touted as being somehow validated by the experience of the F-111 and Collins Class submarine acquisitions of earlier eras. These acquisitions were also late and over budget but eventually proved first-rate platforms. This argument is also a little disingenuous. The F-111 was the best strike aircraft of its day and the Collins Class the best long-range diesel-electric submarine of the time. The JSF by comparison is a second-level aircraft meant to replace the second-level F-16 and F-18 aircraft; the first-level fighter aircraft of their time were the F-15 and F-14. Today's best fighter aircraft, the F-22, may arguably have been a better purchase than the Super Hornet, but the US has not yet been asked to release them to Australia, and so the next-best option that can be acquired in time is the Super Hornet. The F-111 and Collins class were high-risk, high-payoff projects; the JSF project is in some respects the converse: high-risk, low-payoff.

Where does this leave the ADF? Fixing this demonstrably poor strategic plan is very costly in dollars and lost opportunities. Fortunately the Government does not expect the defence force to bear the cost and will fund the Department of Defence an additional \$A7.6bn. This entire episode throws considerable doubt upon departmental long-term strategic planning and higher management capabilities. If even significant errors like this carry no penalties then why should Defence bother doing long-term planning? Indeed arguably doing none will not be any worse than doing it so poorly. A poor plan can be more misleading and dangerous than no plan at all.

From a public administration perspective though the whole matter is particularly problematic. Over the last decade the intent of numerous reforms to the Department of Defence has been to make senior managers accountable

and responsible with the aim being to improve public sector performance. In the case of our new air combat capability, the most expensive test of this philosophy so far, this principle of sound administration appears to have been disregarded. Not addressing this issue by holding the senior departmental leadership responsible and accountable means similar problems will probably reoccur in future, for problems not fixed rarely disappear.

The recent Defence Management Review found that accountability in the Department of Defence was absent, confused and afforded a low priority, there was an indifference to efficiency, and that the senior leadership was less focused on long-term strategic issues. Because of their tight terms of reference, the Review's recommendations did not really address the strategic management issues arising from the poorly handled new air combat capability. Moreover, in this specific case the traditional rejoinder that no one in Defence can be held accountable because accountability is confused

is simply not true. The Australian Government has gone to considerable trouble over the last several years to designate who in Defence is specifically responsible for creating long-term equipment plans and managing projects of this kind.

If the principles of responsibility and accountability are now being abandoned as unworkable (for presumably good reasons) then new principles to govern and guide sound management need to be developed. If not, then hopefully for the Department of Defence future governments (and taxpayers) will be equally generous and lenient, and for the nation future strategic circumstances so benign. Next time the consequences of such demonstrably poor Defence strategic planning could be more expensive than just billions of dollars. ♦

Robert Marlow is a nom de plume.

Conference Calendar

ADA members and other Defender readers may be interested in the following public conferences and activities:

- **Australian War Memorial Peacekeeping Conference**
Force for Good? 60 Years of Australian Peacekeeping, 1947-2007
13-14 September 2007
Telstra Theatre, Australian War Memorial, Canberra
Enquiries: (02) 6243-4345 or Peter.Londey@awm.gov.au
- **UNSW@ADFA Conference 2007**
Defining the 21st Century Warrior: Myth, Reality, Relevance
24-25 September 2007
Australian Defence Force Academy, Canberra
Enquiries: (02) 6268-8871 or k.spurling@adfa.edu.au
- **Safeguarding Australia 2007 6th Homeland Security Summit & Exposition**
Predicting Trends, Identifying Implications and Anticipating Responses
04-05 October 2007
Hotel Realm, National Circuit, Canberra
Enquiries: (02) 6161-5143 or www.safeguardingaustraliasummit.org.au
- **Australian Institute of Professional Intelligence Officers Conference 2007**
The Umbrella of Intelligence
16-18 October 2007
Grand Chancellor Hotel, Hobart
Enquiries: www.aipio.asn.au
- **Defence Science and Technology Organisation Land Warfare Conference 2007**
Pervasive, Persistent, Proportionate: Landforce and Urban Warfare
22-26 October 2007
Adelaide Convention Centre, Adelaide
Enquiries: (08) 8259-5455 or www.dsto.defence.gov.au/corporate/conferences/landwarfare
- **Chief of Army History Conference 2007**
1917: Training, Tactics and Technology
01-02 November 2007
National Convention Centre, Canberra
Enquiries: (02) 6266-4248 or http://www.defence.gov.au/army/ahu/EVENTS/events-index.htm
- **Australian Homeland Security Research Centre, National Capability Development Symposium**
27-28 November 2007
Alastair Swain Theatre, Brindabella Park, Canberra International Airport
Enquiries: (02) 6161-5143 or www.capabilitydevelopment.org.au
- **Kokoda Foundation Seminar-Dinner**
Strategy for Winning the Long Struggle: Key Factors for Success
7:00PM, Thursday, 29 November 2007
Dining Room, Old Parliament House, Canberra
Enquiries: (02) 6161-9000 or http://www.kokodafoundation.org/Dinner.html
- **United States Studies Centre (University of Sydney), National Summit 2007**
21st Century America: Reflections, Aspirations and Challenges
09-11 December 2007
NSW Trade and Investment Centre, Level 47, MLC Centre, 19 Martin Place, Sydney
Enquiries: (02) 9351-7249 or http://www.sydney.edu.au/us-studies
- **Kokoda Foundation, Young Strategic Leaders' Forum, Congress 2007**
Strategy for Winning the Long Struggle: Key Factors for Success
7:00PM Friday 14 December to 2:30PM Sunday 16 December 2007
ANU Coastal Campus, Kialoa (near Bawley Point), NSW
Enquiries: (02) 6161-9000 or http://www.kokodafoundation.org/YSLFCongress.html
- **RAN Seapower Conference 2008 (at the Pacific 2008 Maritime Exposition)**
Australia and its Maritime Interests: At Home and in the Region
29-31 January 2008
Sydney Convention Centre, Darling Harbour, Sydney
Enquiries: www.seapower2008.com