



Fourth to fifth

Enter the F-35A Lightning II

As evidenced by the deployment of its first two F-35A fighters across the Pacific for the 2017 Avalon Airshow – the RAAF has already commenced its transition from fourth generation to fifth generation. Like the two previous fighter transitions – from Avon-Sabre to Mirage III, then to F/A-18A (March and April 2017 AA) – each with their unique characteristics, the introduction of the F-35A will pose some new problems especially given the large step-change in capability.

Like previous transitions, the RAAF will also have to maintain a credible level of combat capability throughout the change, and possibly require it to sustain concurrent operational deployments. But aside from this, most of the issues arising from the transition can be categorised as related to either the management of the increased resources and personnel needed for the transition, or to the introduction of significantly increased levels of technology and capability.

Previous transitions certainly have been stressed by the demand on resources and personnel during the phase out of the preceding fighter, the phase in of the new fighter, and during the period of overlapping operations and sustainment of the two types. However, unlike earlier fighter transitions, the RAAF now can exploit the availability of overseas F-35A training rather than conduct all of the transitional activities in Australia.

3 Squadron will be the first RAAF unit to convert to the F-35A with some personnel already in the US for training. This progressively expanding group will further consolidate their F-35A training by remaining in the US for some time, with the pilots gaining further experience as instructional pilots (IPs in USAF jargon) in the USAF F-35A training unit.

Soon after, personnel earmarked for future Australian-based F-35A fighter instructional duties will join 3 Squadron personnel in the US.

As this cohort of Australian F-35A instructional staff builds in the US, 2 Operational Conversion Unit, the RAAF's dedicated fighter training unit, will cease F/A-18A operational training.

Once 3 Squadron has built to a critical mass it will return to Australia where it will further mature into Australia's first operational F-35A unit. Shortly after, the cadre of instructional staff that had also been building in the US will return to Australia to reconstitute 2OCU as the dedicated Australian F-35A training unit. From this base, 2OCU will build its F-35A training capacity and expertise, at a measured rate, until the unit takes on the responsibility for converting pilots from the remaining two F/A-18A squadrons onto the F-35A, as well as commencing the training of pilots graduating from the RAAF Hawk lead-in fighter training program.

With the phase out of the F/A-18A, and with 6 Squadron now an EA-18G unit, there also will be consequences for the training of Australian F/A-18F and EA-18G aircrew. The option of including a training organisation for F/A-18F and EA-18G aircrew, within 1 and 6 Squadrons respectively, would come at the cost of eroding the operational capabilities of both squadrons. Hence the decision to train Australian F/A-18F and EA-18G aircrew in the US, with 'C' Flight of 1 Squadron being tasked only with the

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⬇ All eyes are on the RAAF's transition to the F-35. PAUL SADLER.

conduct of RAAF F/A-18F refresher and standardisation activities.

Apart from managing the personnel and resource aspects of the transition, the RAAF must also manage the technological advances which are core to the operational effectiveness of the F-35A. Stealth, sensors, sensor fusion and connectivity, all involve technological leaps which will be periodically enhanced by software and hardware upgrades.

These new technologies will generate substantial changes in roles, operational doctrine, tactics and procedures which will impinge on not just other Air Force capabilities, but also Army and Navy capabilities. The evolutionary expansion of the unparalleled connectivity of the F-35A to other ADF capabilities will likely presage an expansion of F-35A roles well beyond the roles traditionally espoused for combat systems with an 'F' designation.

So the Air Force seems well-placed in its transition to a new air combat capability, which is not surprising given Australia's long and deep involvement with the JSF program as a Level 2 partner nation. As the Avalon deployment showed, the RAAF is on the verge of a new operational era, with its combat force of three F-35A squadrons, an F-35A operational conversion unit, one squadron of F/A-18F Super Hornets and one squadron of EA-18G Growlers.

It would seem to be a good time to be a junior air force ADFA cadet, with the prospect of earning wings on the spirited Pilatus PC-21, followed by lead-in fighter training on the upgraded Hawk, and then converting directly to the F-35A. 📌

Air Vice-Marshal Brian Weston (Ret'd) flew Sabre, Mirage and Hornet fighters during his Air Force career.

