At the end of World War II the RAAF faced several challenges in regard to determining its strike capability in the post-war environment. In the later years of the war, the value of deploying a range of light, medium and heavy bomber aircraft proved itself across a diverse range of missions conducted in the South West Pacific Area of operations. However, in post-war Australia, there was a great deal of uncertainty regarding the structure of the peace-time Air Force in the absence of any immediate threats to the nation. Government directives were that in the absence of any imminent threat, all efforts were to be directed towards demobilisation and disposal of surplus equipment. This included the disposal of most of the 5585 aircraft the Air Force had in its inventory at war’s end.

The finely balanced strike capability the RAAF had developed during World War II was to be disposed of, with little consideration given to retaining the flexible and potent force that had served Australia so well in the final years of the conflict. Instead, the greatly reduced force of 8025 personnel that emerged in 1948 included a meagre force of just 73 Avro Lincoln heavy bombers, supported by a few legacy aircraft from World War II. From this point to more recent years, the RAAF’s strike capability would be represented by a single aircraft type. This ‘one type fits all’ approach was not without its problems however, and over the years the Air Force has been forced to consider a number of compromise solutions to address shortfalls in mission capability, performance and the creation of the desired effects.

In the case of the Lincoln aircraft, their employment during the Malayan Emergency demonstrated the value of bombers with the range and load capacity to conduct sustained attacks on ground targets. However, it also highlighted the problems associated with using what was essentially World War II-era aircraft and technology on time sensitive targets in close proximity to both friendly forces and civilians. The dead reckoning and long predictable tracks used by the Lincoln crews to ensure accurate bombing in the difficult jungle conditions would not have been possible had there been any form of creditable anti-aircraft fire.

The Lincoln was also destined to be the last dedicated piston engine bomber in Air Force service, and was progressively replaced in RAAF service from 1953 by the English Electric Canberra bomber. Powered by two Rolls-Royce Avon jet engines the Canberra was, at best, a medium bomber. Blessed with a range of over 2000 km, the Canberra had outstanding handling characteristics at both high and low altitudes. It was undeniably a very successful aircraft in Australian service, operating until 1982. However, the Canberra variant operated by the RAAF was already obsolete when it entered Australian service. With World War II-era bombsights, the aircraft was limited to visual daylight attacks and carried no passive or active self-defence measures in an era when air-to-air and surface-to-air guided missiles were becoming operational. This coupled with subsonic speed, meant the RAAF’s Canberra aircraft were increasingly vulnerable during operations in their intended mission profiles.

The Canberra bomber was further limited in the amount of ordnance that could be carried internally. The
normal bombload of six 450kg bombs could only achieve the desired effect if dropped accurately. However, it was calculated that in a conventional war, the RAAF simply did not have enough aircraft numbers to achieve the desired level of destructive power.

One solution to ameliorate this shortfall was to expand the RAAF’s bomber force with the introduction of one of the V-bombers operated by the Royal Air Force. However, this plan was rejected by the Government in 1955 as being too expensive, and carrying too great an operating overhead. The other option was to arm the RAAF Canberra aircraft with tactical nuclear weapons. While the nuclear option was seriously considered, wider economic and geopolitical circumstances militated against it (see Pathfinder #29). Instead, the RAAF decided to move Canberra operations away from strategic to tactical strikes—in essence, a compromise forced on the RAAF due to the serious shortcomings of possessing only a limited strike capability.

During 1963 there was a considerable alignment of both political and Defence interests to reinvigorate the intention to replace the Canberra with a more modern aircraft. As was becoming increasing common in Defence acquisitions, the Statement of Requirement for the new aircraft recognised Australia’s strategic circumstances in justifying the performance and capability requirements of the new platform. By October of that year the F-111 was announced as the RAAF’s next strike platform.

In reality, the F-111 was not due to enter RAAF service until 1970. This prompted plans for the RAAF to operate 24 USAF B-47B Stratojets as an interim measure. However, operating an aircraft of this type was not within the RAAF’s capability at the time, and despite three B-47s conducting a lengthy visit to RAAF bases across Australia, all plans to operate the B-47 were dropped. The ongoing delays in delivery of the F-111 resulted in the RAAF operating the F-4E Phantom II (1970-73). With modern weapon systems, multi-role capability and demanding maintenance needs, the Phantom provided the learning curve the RAAF needed before the arrival of the even more advanced F-111s. The F-4 experience also suggested that if the RAAF were to operate a single type for its strike capability, then a flexible multi-role aircraft was essential to balance the force.

In many ways, the F-111 offered the best possible solution to the RAAF’s strike requirements; its long range and low-level penetration capability, coupled with advanced weapon systems and significant payload, resulted in a capability that provided both strategic deterrence and tactical flexibility. As upgrades enabled precision attack and maritime strike, the F-111 became arguably the most important strike aircraft the RAAF had ever operated. It did, however, reach the end of its useful life—its non-stealthy radar profile, aging airframe and increasing maintenance overheads eventually bringing its service to an end in December 2010.

Currently, the RAAF couples the multi-role flexibility of the F/A-18F with the reach and penetration generated by air-to-air refuelling. In combination with the doctrinal principles of precision, dynamic ISR and decision superiority, the RAAF’s strike capability is as finely balanced now as it was at the close of World War II. Whereas in the past that balance was achieved through a mix of bomber types, today it is achieved through a system of mutually supporting capabilities which generate a far wider range of effects. Instead of managing operations across multiple aircraft types to match capability to effects, today the RAAF manages seams between capabilities to achieve strategic, operational and tactical outcomes.

A No 1 Squadron FA-18F Super Hornet is refuelled in mid air by a No 33 Squadron KC-30 Multi-Role Tanker Transport during Exercise TALISMAN SABRE 2013.

Key Points

- Limited capability in the conduct of air power roles will necessitate the compromise of mission effectiveness across the spectrum of conflict.
- Multi-role strike platforms with significant performance characteristics provide the RAAF with the most flexible and potent strike options.
- Enabling air power roles can mitigate deficiencies in some aspects of performance shortfall in the core air power roles.