



RAAF WAGGA

AVIATION HERITAGE CENTRE

Dassault Mirage III

A3-41

Despite being the Royal Australian Air Force's (RAAF) frontline fighter for more than two decades, the Mirage never fired its weapons in conflict. A3-41 served with the RAAF from October 1956 and was retired from service in July 1973.

Mirage A3-41 was delivered to the RAAF on 4 August 1966. It served with No 76 Squadron at RAAF Williamtown in NSW (1966–7) and with No 75 Squadron at RAAF Butterworth in Malaysia (1967–9). In 1969, A3-41 returned to RAAF Williamtown for service with No 77 Squadron.

On 6 April 1976, A3-41 caught fire in flight and was forced to make an emergency landing in Nowra in NSW. The aircraft was moved to RAAF Wagga in NSW and, in April 1977, the RAAF School of Technical Training received approval to rebuild it. A3-41 was used as a training aid until it was displayed in the RAAF Wagga Aviation Heritage precinct.



*A3-41 while serving with No 77 Squadron.
Source: SQNLDR Nigel Webster*

Technical Specifications

DESCRIPTION: Single-seat interceptor/ground attack fighter.

POWER PLANTS: One 60.1kN (13 670lb) thrust with afterburner SNECMA Atar 9C turbojet.

DIMENSIONS: Span 8.22m (26ft 11.5in); length 15.03m (49ft 3.5in); height 4.50m (14ft 9in).

WEIGHTS: Empty 7049kg (15,540lb); max loaded 13,699kg (30,200lb).

ARMAMENT: One Matra R530 and two Sidewinder AIM-9B or (later) two Matra R550 Magic air-to-air missiles; two 30mm cannon. Typical ground attack load six Mk.82 227kg (500lb) bombs or three GBU-12 laser-guided bombs. Max external load 3992kg (8800lb).

PERFORMANCE: Max speed Mach 1.14 (1390km/h/864mph) at sea level, Mach 2.2 (2350km/h/1460mph) at 10,973m (36,000ft); time to 10,973m (36,000ft) 3.0min; service ceiling 16,994m (55,755ft); combat radius (ground attack) 1200km (746 miles); max ferry range 3862km (2400 miles).

Dassault Mirage IIIO

In the mid-1950s, the RAAF initiated a search for a replacement for the Commonwealth Aircraft Corporation (CAC) Sabre. In March 1961, the Mirage III was chosen. The RAAF placed an initial order for 30 aircraft, marking the introduction of supersonic capabilities to the RAAF fleet. Subsequent orders increased the number to 100 Mirage IIIO fighter-bombers and 16 Mirage IIID two-seat operational trainers.

The Mirage's journey began with the first flight of the Mirage I in June 1955. This flight was followed by a substantially revised prototype, the Mirage III, in November 1956. When the RAAF selected the Mirage III, two engine options were considered: the French SNECMA Atar 9C and the Rolls-Royce Avon turbojets. Rolls-Royce collaborated with Dassault to offer the Avon-powered Mirage to the RAAF. Despite its superior performance, the Avon-powered option was not pursued due to cost.

The Mirage III production for the RAAF commenced in France, with the first RAAF aircraft (A3-1) flying in Bordeaux on 14 March 1963 and being officially handed over to the RAAF at Villaroche, near Paris, on 9 April 1963. While the first aircraft was delivered to Australia via a RAAF C-130A Hercules, the second French-built aircraft (A3-2) remained in France until August 1965 for testing due to the various RAAF modifications.



A3-41 at Nowra in NSW after the emergency landing in 1976. Source: SQNLDR Nigel Webster

Two additional Mirage aircraft arrived in Australia as fully-equipped major assemblies and were completed at Avalon by the Government Aircraft Factories (GAF). The first of these, A3-3, made its inaugural flight at Avalon in Victoria on 16 November 1963 under the command of Squadron Leader Bill Collings.

Over time, the Australian production content increased, with GAF subcontracting the wings, tail, and engine to the CAC. While the early aircraft (A3-3 to A3-8) were built in France and assembled in Australia, subsequent aircraft had decreasing proportions of French components, gradually transitioning to fully Australian-built Mirage aircraft. The final single-seat Mirage IIIO (A3-100) was delivered to the RAAF in December 1968.

The Mirage IIIO aircraft served in various roles within the RAAF. The initial 48 Australian-assembled aircraft (A3-3 to A3-50) were designated Mirage IIIO(F) interceptors and equipped with a Cyrano IIA radar. No 2 Operational Conversion Unit at RAAF Williamtown in NSW received the first deliveries in 1964, followed by operational units such as No 75 Squadron (1965) and No 76 Squadron (1966).

The next 50 aircraft (A3-51 to A3-100) were built as Mirage IIIO(A) ground-attack variants,

featuring the ground-mapping Cyrano IIB radar, Doppler navigation, and radar altimeters for low-level operations. During strikes at GAF, 10 complete fuselages were imported from France to maintain the delivery rate. These Mirage aircraft were gradually assembled in Australia, with an increasing proportion of Australian-built components.

The Mirage III never engaged in combat.

Originally, the RAAF planned to replace the Mirage fleet by 1979 due to a nominal fatigue life of 3000 flying hours per airframe.

However, operational demands and a focus on low-level air-to-ground operations resulted in a higher use rate. The Aeronautical Research Laboratories of Australia conducted fatigue testing and developed boron fibre repair patches to prevent wing cracks from spreading. Some Australian Mirages exceeded 4000 flight hours.

The Mirage underwent upgrades during the late 1970s, including improved avionics, ejection seats, and the replacement of AIM-9B Sidewinder missiles with the superior Matra R.550 air-to-air missiles.

The final RAAF Mirage flight took place on 8 February 1989, when A3-101 was flown from the Aircraft Research and Development Unit at RAAF Edinburgh in South Australia (SA) to Woomera in SA.

In 1990, Pakistan purchased 50 Mirages from the RAAF, comprising 40 single-seaters and eight two-seaters stored at Woomera, along with five incomplete airframes and two single-seaters previously stored at RAAF Point Cook in Victoria. Forty-five of these aircraft were incorporated into operational service with the Pakistan Air Force.

Sources

Richardson, D & Wood, P 2021, *Aircraft of the Royal Australian Air Force*, Big Sky Publishing, Newport, pp 418–423.

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