



RAAF WAGGA

AVIATION HERITAGE CENTRE

Aermacchi MB-326H

A7-004

The Aermacchi (Macchi) was an advanced pilot training aircraft and considered a 'delight to fly'. A7-004 served with the Royal Australian Air Force (RAAF) from June 1967 and was retired from service in 2014.

Macchi A7-004 was built in Italy. Its first flight was on 27 June 1967 after which it was shipped to Australia for reassembly by the Commonwealth Aircraft Corporation (CAC).

On 29 November 1967, A7-004 was delivered to the RAAF and it served at RAAF East Sale in Victoria until 1970. During this time, it also had a stint with the [Telstars Aerobatic Team](#). A7-004 later served with No 2 Flying Training School at RAAF Pearce in Western Australia and No 76 Squadron at RAAF Williamtown in NSW (current livery). In November 2000, A7-004 was delivered to the RAAF School of Technical Training in NSW for use as a training aid.

In 2018, A7-004 was relocated to the front of RAAF Wagga as a gate guard. It is now on display in the RAAF Wagga Aviation Heritage precinct.



*A7-004 as part of the Telstars aerobatic team.
Source: ADF Serials*

Technical Specifications

DESCRIPTION: Advanced pilot and lead-in-fighter trainer.

POWER PLANTS: One 11.12kN (2500lb) Rolls-Royce Viper 11 Mk.22 turbojet.

DIMENSIONS: Span 10.57m (34ft 8in); length 10.67m (35ft 0in); height 3.71m (12ft 2in).

WEIGHTS: Empty 2236kg (4930lb); loaded 4300kg (9480lb).

PERFORMANCE: Max speed 806km/h (501mph); initial climb 1370m (4500ft)/min; service ceiling 13,411m (44,000ft); max range with big tip tanks 1512km (940 miles).

Aermacchi MB-326H

In the 1960s, the RAAF sought a replacement for its ageing Vampire and Winjeel aircraft. Its intention was to implement an all-through-jet pilot training syllabus, which was in vogue among air forces worldwide. This meant that trainee pilots would start training on a jet, eliminating the need for a basic piston-engine trainer in the initial phase of their training.

The RAAF selected the Aermacchi MB-326H in August 1965. The aircraft, commonly referred to as the Macchi in Australia, featured a

tandem cockpit closely resembling the layout of the RAAF's Mirage III and the Royal Australian Navy's (RAN) A-4 Skyhawk fighters.

Initially, the RAAF ordered 75 MB-326H aircraft; this number was later increased to 87. An additional 10 aircraft were procured for the RAN.

The RAAF's MB-326Hs were assigned serial numbers A7-001 to A7-072, A7-079 to A7-083, and A7-088 to A7-097. When the RAN's Macchi fleet was transferred to the RAAF in 1983 following the decommissioning of the RAN fleet, they were redesignated with the RAAF's A7 serial prefix.

The first Australian-assembled Macchi took to the skies in April 1967, having been shipped from Italy for reassembly by the CAC. It was officially handed over to the RAAF in October 1967. The initial 20 Macchis were assembled primarily from Italian components, while the remaining 77 had a significantly higher proportion of Australian content. The final delivery of the MB-326H occurred in September 1972, with the RAAF having a total of 97 Macchis in service.

The Central Flying School (CFS) at RAAF East Sale was the recipient of the first Macchi. It was used for the RAAF formation aerobatic team, known as the Telstars, and later for the RAAF Roulettes.

In 1969, No 2 Flying Training School (2FTS) at RAAF Pearce in Western Australia took delivery of the Macchi aircraft. It was employed for advanced pilot training. Due to the pressure to increase pilot training numbers during the Vietnam War, and the escalating fuel costs, the Macchi briefly served as an all-through trainer.



Macchis (including A7-004) on the tarmac at RAAF Pearce. Source: ADF Serials, Dave Soderstrom

There were also a few aircraft allocated to the Aircraft Research and Development Unit. The 10 RAN Macchis were used for lead-in A-4 Skyhawk transition training and pilot development.

Throughout their service, the Macchis were operated by 2FTS, No 2 Operational Conversion Unit, No 5 Operational Training Unit, and Nos 25, 76, 77 and 79 Squadrons. The aircraft were equipped with two sizes of wingtip tanks: 30-gallon small tippers used in training and 70-gallon big tippers for long-range flights. Due to Australia's vast geographic expanse, the big tippers became the standard, with only a few small tippers remaining in the fleet.

In 1989, the Macchi was replaced by the Pilatus PC-9/A as the RAAF's advanced pilot trainer. The remaining Macchis were transitioned into the lead-in-fighter role until they were ultimately succeeded by the BAE Systems Hawk 127 in 2000.

During its RAAF service, the Macchi faced several challenges, including engine fires caused by high-pressure fuel leaks, resulting in accidents and ejections. One incident occurred when a canopy opened inadvertently in flight, resulting in the loss of the aircraft and the lives of its crew. The fuel leak and engine fire issue resurfaced in the late 1980s, leading to further accidents.

Over the course of its service life, the Macchi experienced operational accidents caused by low flying, controlled flight into terrain, low-level aerobatics, mid-air collisions, and

engine flameouts due to icing. The most notable mid-air collision occurred in March 1988 when two Roulettes collided during a practice session for the 1988 Bicentennial Air Show. In total, 26 Macchis were lost during their more than three decades of service.

Fatigue management became a major concern for the Macchi, necessitating close collaboration between the RAAF, Australian industry, and the Defence Science and Technology Organisation. This collaboration led to an extensive Life Of Type Extension program in the early 1980s, which addressed fatigue issues across much of the airframe. By the early 1990s, the Macchi was primarily employed in the lead-in fighter training role. However, fatigue issues significantly reduced its availability, hampering the RAAF's training syllabus. Imposed 'G' limits further restricted its usefulness.

The Macchi made its final public appearance at the 2001 Australian International Airshow at Avalon in Victoria.



Macchis inflight (including A7-054). Source: RAAF

Sources

Richardson, D & Wood, P 2021, *Aircraft of the Royal Australian Air Force*, Big Sky Publishing, Newport, pp 436–440.

Wilson, S 1994, *Vampire, Macchi and Iroquois in Australian Service*, Aerospace Publications, Weston Creek, pp 71–129.

Edwards, M, Crick, D & Cowan, B 18 Jan 21, ADF-Serials, viewed 29 Jun 22, <<http://www.adf-serials.com.au/3a7.htm> >

ADF-Serials Images, viewed 22 Mar 23, <<http://www.adf-gallery.com.au/index.php?/category/macchi-a7-004>>