Two distinct versions of the RAAF Mirage were produced, the original III-O(F), a pure fighter version A3-1 to A3-50 inclusive.
They were originally left in the bare metal finish but corrosion problems saw them painted a silver colour .

From A3-50 onwards they were manufactured as III-O (F/A) the main difference being the inclusion of a Cyrano IIB Doppler radar to allow for a ground attack capability. With two exceptions all surviving (F) models were upgraded to (F/A) from June 1969. The exceptions were A3-2 which remained with ARDU for the duration, and had many trials modifications not fitted to the rest of the fleet, and A3-26 which remained in France for the first three years of it’s life as a test bed for the update.

The introduction of a ground attack capability saw the aircraft painted in a camouflage scheme of dark green / grey overall, this was followed by a lighter shade of green / grey with a light grey underside,

The last variant saw them painted a light blue grey overall.
To distinguish friend or foe during air to air combat training some aircraft also had a wide band of yellow or orange paint applied on the upper wing surfaces.

The various operational squadrons and their locations are as follows;
75 Sqn Williamtown, NSW 08/65-04/67
75 Sqn Butterworth, Malaysia 05/67-08/83
75 Sqn Darwin, NT 08/83-09/88
76 Sqn Williamtown, NSW 09/66-08/73
3 Sqn Williamtown, NSW 07/67-02/69
3 Sqn Butterworth, Malaysia 02/69-03/86
77 Sqn Williamtown, NSW 02/69-07/87
79 Sqn Butterworth, Malaysia 03/86-04/88

In addition there were No2 OCU based at Williamtown, NSW and ARDU based at Laverton, Vic then Edinburgh, SA

76 Sqn was disbanded in 1973 to allow more aircraft to be shared amongst the other operating units. 75 Sqn returned to Darwin in 1983 to provide a fighter defence for the top end whilst the Hornet Sqns became operational, it absorbed some of the 3 Sqn Mirages , ending up with 21 IIIOs and 4 IIIDs . 79 Sqn had been reformed at Butterworth to absorb the remnants of 3 Sqn’s aircraft and to provide a presence in the area when 3 Sqn returned to Australia to re equip with Hornets in 1986, 77 Sqn still at Williamtown eventually got all the rest of the aircraft including 2OCU’s, in fact taking over that unit’s role of pilot conversion whilst 2OCU changed to Hornets. The eventual strength of 77 Sqn was some 40 Mirages ( plus 16 Macchis )

During 1960, the RAAF started the process of evaluating a replacement for the CA-27 Sabre.  Whilst the F-104G was a contender, the ultimate choice was for the Mirage IIIE.  Dassault had experimentally built an Avon engined Mirage and had investigated air-air refuelling for it, however the final decision was to stay with the standard IIIE.  The variant was dubbed the Mirage IIIO, “O” being for “Orstralian”. The initial order was placed in late 1961.

The first French-built machine was handed over to the RAAF in April 1963 and progressively local manufacture introduced more and more Australian content.  A3-11 was the first built from parts, albeit French primary parts and A3-16 was the first all Australian aircraft.  A total of 114 aircraft were delivered to the RAAF, with two single seat variants and a two seat trainer.  The single seat variants were the Mirage IIIO(F) interceptor and the Mirage IIIO(A) ground attack variant, the “A” aircraft also being capable of air to air operations.  Basic armament was twin 30 mm DEFA cannon (based on German Mauser cannon) with two Sidewinder or Matra 550 air to air missiles.  A selection of drop tanks and bombs could also be carried.

No 75 Squadron became operational in 1965 and the last RAAF Mirage flight was on 8 February 1989, making the Mirage the longest serving fighter in RAAF history.  During that time, of the 114 aircraft delivered, 40 were lost in accidents.  After retirement, fifty were sold to the Pakistan Air force in 1990 with the rest being acquired for museums or scrap.