Mirage IIIRJ [Shahak] - 1965, 2x

Israel

Type: Recon

Min Speed: 350 kt

Max Speed: 920 kt

Commissioned: 1965

Length: 15.0 m

Wingspan: 8.2 m

Height: 4.5 m

Crew: 1

Empty Weight: 7050 kg

Max Weight: 13700 kg

Max Payload: 0 kg

Propulsion: 1x Atar 9C

Sensors / EW: - Generic Visual Reconnaissance Camera - (4x Magnification) Visual, Visual, Reconnaissance Frame Camera, Max range: 9.3 km
- Generic RWR - (4x Magnification) ESM, RWR, Radar Warning Receiver, Max range: 222.2 km

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Weapons / Loadouts:
- 1300 liter Drop Tank - Drop Tank.
- 1700 liter Drop Tank - Drop Tank.
- 625 liter Drop Tank - Drop Tank.

The Mirage III was the first European combat aircraft to exceed a speed of Mach 2 in horizontal flight. The aircraft was developed to meet a French air staff requirement for a small, manned, supersonic interceptor with good armament, fast rate of climb and capable of operating independently of ground control. The original MD.550 Mirage I design was powered by a pair of small Viper turbojets and a rocket motor and flew in 1955. This design was judged too small for practical service and was not built. The Mirage II was bypassed for a much more ambitious design that was 30% heavier than the Mirage I and was powered by the new SNECMA Atar afterburning turbojet with thrust of 43.2 kN (9,700 lbf). The Atar was an axial flow turbojet, derived from the German World War II BMW 003 design. Dassault moved on to the definitive Mirage III design powered by the SNECMA Atar turbojet with an optional rocket booster. The first prototype flew on 17 November 1956 and this aircraft was able to achieve a maximum speed of Mach 1.8. The French air force ordered 10 pre-production aircraft and these featured a reprofiled fuselage and a thinner wing and more powerful Atar 9B turbojet. The first of these flew in May 1958 and in October of the same year exceeded Mach 2 for the first time. Following these aircraft was the production Mirage IIIC with rocket booster and CSF Cyrano radar. First flight was in 1960. The Mirage IIIB was the two seat operational trainer version and first flew in 1959. In total 184 Mirage IIICs were produced for France (95), Israel (72 IIICJ), Switzerland (I IIICS), and South Africa (16 IIICZ) and 77 Mirage IIIBs were delivered to France, Israel, Lebanon, Switzerland and South Africa. As far as is known no export

customers ever employed the rocket booster, instead they used the optional extra fuel tank in its place. One of the pre-production aircraft was fitted with a Rolls Royce Avon 67 in 1961 for evaluation by Australia but was not produced.

Australia and indeed most export customers instead chose to purchase the new Mirage IIIE fighter bomber variant with the more powerful Atar 9C engine. it also featured a slight fuselage stretch with a larger avionics bay, a dual role Cyrano II radar, a Marconi Doppler radar for all weather low level navigation, navigation computer, increased fuel capacity, new fire control system and an increase in the number of weapons stations to five (one under centerline and four underwing). The Armee de l'Air received 192 of this variant while export customers were Argentina (17 IIIEA), Australia (100 IIIO), Brazil (16 IIIEBR), Lebanon (10 IIIEL), Pakistan (18 IIIEP), South Africa (17 IIIEZ), Switzerland (36 IIIS) and Venezuela (10 IIIEV). Australian aircraft were built in two distinct blocks. The 49 of the first 50 aircraft were completed as Mirage IIIO(F) interceptors, lacking the Doppler radar attack navigation equipment. The second batch of 50 was fitted with that equipment and were called the Mirage IIIO(A). The earlier aircraft were subsequently upgraded to this standard. Swiss Mirage IIIS aircraft were fitted with a Hughes Taran fire control system and employed Hughes Falcon AAMs. The Mirage IIID was the two seater trainer and was built for Australia (16), Argentina (2), Brazil (6), Pakistan (5), South Africa (14), Spain (6) and Switzerland (2). The other major variant of the Mirage III was the IIIR reconnaissance variant featuring five visual cameras or three IR units. These were built for France (72), Pakistan (13), South Africa (8, 4 with Atar 9K-50) and Switzerland (18).
The Mirage III has had a long service life and the aircraft have been upgraded throughout their service lives. Australia's aircraft were replaced by the F-18 Hornet during the mid 1980s with Pakistan purchasing 50 of the aircraft which were refurbished and placed into service to bolster its fleet. In French service the type was replaced by Mirage F-1s and later Mirage 2000s. Brazilian and Swiss aircraft have been fitted with canard foreplanes and new avionics while South Africa's aircraft have been remanufactured by Denel (Atlas) as the Cheetah.

Original Author: François Guérin