

M-346 Advanced/Lead-in Fighter Trainer



The Alenia Aermacchi M-346 is the world's newest fifth generation advanced/lead-in fighter trainer. The M-346 was conceived with the latest "design-to-cost" and "design-to-maintain" concepts, with avionics modeled on the world's fifth generation combat aircraft.

The M-346's vortex lift aerodynamics, variable camber wing, near 1:1 thrust to weight ratios, and fly-by-wire flight control system allow the aircraft to remain fully controllable at angles of attack up to 40° and ensure maneuverability, performance and flying qualities close to that of a front line fighter.

The M-346 also offers a high level of safety as a result of its high system redundancy (twin engine, twin

hydraulic and electrical systems) and careful evaluation of system installation.

The latest generation of avionics, state-of-the-art pilot-vehicle interface and the in-flight capability to simulate tactical scenarios, sensors and weapons immerse the pilots in a realistic and complex training environment, making the M-346 the ideal platform for future Integrated Training Systems for combat aircraft such as the Eurofighter, F-22 and F-35.

The M-346 has been selected by the Italian Air Force as their next advanced jet trainer. The M-346 is currently competing around the world for future Advanced Jet Training (AJT) programs.

M-346 TECHNICAL DATA



Dimensions

Span:	31.89 ft/9.72 m
Length:	37.70 ft/11.49 m
Height:	16.34 ft/4.98 m
Wing area:	253.20 ft ² /23.52 m ²

Weights

Empty:	10,163 lb/4,610 kg
T.O. (trainer):	14,770 lb/6,700 kg
Weapon load (max):	6,615 lb/3,000 kg
Max T.O. (armed):	20,945 lb/9,500 kg

Powerplant

Engine:	2 x F-124 GA-200 Honeywell turbofans
Thrust:	2 x 6,250 lb/2 x 2,835 kg
Internal fuel (usable):	4,409 lb/2,000 kg

Performance (clean, ISA)

Max level speed (5000 ft):	590 KTAS
Limit speed:	572 KEAS
Rate of climb:	20,000 ft/min
Stall speed (landing, 100% fuel):	103 KCAS
Service ceiling:	45,000 ft
Range clean/3 ext. tanks (10% reserve):	1,500 nm/1,100 km
Max sustained load factor (15,000 ft):	5.6 g
Max sustained turn rate (15,000 ft):	14.5 deg/sec
Take off ground run (s.l.):	950 ft/290 m
Landing ground roll (s.l., 10% inter. fuel):	1,800 ft/550 m
Limit load factor:	+8/-3 g

Three View

