

AERMACCHI M-345

The next generation trainer



AIRCRAFT DIVISION

 **LEONARDO**

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The Aermacchi M-345 is the latest-generation training platform from Leonardo Aircraft, ideally suited for the entire training syllabus, from basic to advanced training phases.

The M-345 leverages more than 60 years of consolidated experience of Leonardo Aircraft in the design and manufacture of jet trainer aircraft. All of the M-345's essential systems are designed for maximum safety and reliability with minimum maintenance requirements. As a result, the M-345 delivers the high performance of a turbofan jet trainer with life-cycle costs comparable with those of heavy turboprop-powered basic training aircraft.

Operators benefit from a two-level maintenance concept (Organisational and Intermediate) for aircraft, equipment and systems, whilst an on-board Health & Usage Monitoring System (HUMS) enables data-collection and monitoring.

Thanks to its modern avionics, high external load capacity and performance, the versatile M-345 is also suited for operational roles, with the capability to employ weapons like gun pod, rockets and 500 lb class bombs.

The M-345 is the "core" of an advanced training system which includes a complete Ground Based Training System (GBTS) package comprised of e-learning components such as the Computer-Based Training (CBT), the Procedural Training Device (PTD), a Mission Support Station for Planning, Briefing and De-briefing, a Part Task Trainer (PTT) with a 180° wide-screen display and a life-like cockpit where the student pilots can use the same controls they will find on actual aircraft. The Full Mission Simulator (FMS) features a 360° visual display system and allows the introduction to tactics skills, which will be then verified in-flight with the Embedded Tactical Training System (ETTS),

able to generate on the Multi-Function Displays the tracking of targets, friend or foe aircraft, threats and all the necessary elements to create an effective Live, Virtual and Constructive training scenario.



CHARACTERISTICS

WEIGHTS

Take-off (Trainer)	7,715 lb	3,500 kg
Take-off (Maximum)	9,920 lb	4,500 kg

POWERPLANT

Engine, turbofan: Williams FJ44-4M-34		
Maximum Thrust, SLS, ISA	3,400 lb	1,540 kg
Max Internal Fuel	1,545 lb	700 kg

PERFORMANCE (Clean, ISA)

Max Level Speed (SL/20,000 ft)	380/425 KTAS	704/787 km/h
Limit Speed	400 KEAS/ 0.8 MN	741 km/h
Stall Speed (Landing, 20% fuel)	92 KCAS	170 km/h
Rate of Climb (SL)	4,700 ft/min	1,435 m/min
Service Ceiling	40,000 ft	12,190 m
Limit Load Factors	+7/-3.5 g	
Max Sustained Load Factor (50% fuel, SL)	4.0 g	
Take-off/Landing Ground Run (SL)	2,050 ft	625 m
Ferry Range, 10% reserve, Clean	720 nm	1,330 km
Ferry Range, 10% reserve, 2 Ext. Tanks	1,000 nm	1,850 km
Endurance, 10% reserve, Clean/ 2 Ext. Tanks	150 min/ 210 min	