

# AERMACCHI M-345

The multirole armed trainer



AIRCRAFT DIVISION

 **LEONARDO**

# Aermacchi M-345 | The multirole armed trainer

The new Aermacchi M-345 Multirole Armed Trainer is the latest-generation tandem-seat jet trainer from Leonardo Aircraft. Able to cover the entire training syllabus, from basic to advanced phases it is also ideally-suited for an effective light combat solution in evolving operational scenarios for modern Air Forces. The M-345 has been developed exploiting the full consolidated experience gained by Leonardo Aircraft in designing and manufacturing its wide family of highly successful trainers and light combat aircraft over the past 60 years to include the SF.260W, MB.326, MB.326K and the MB.339, combat proven worldwide.

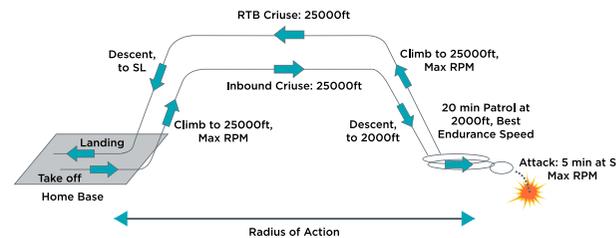
While maintaining its superior characteristics as a jet trainer, thanks to its modern avionics and performance, due its high external load capacity (more than 1,000 kg, 4 underwing pylons), the M-345 is also suited for operational roles, including air-to-air and air-to-ground, with the capability to employ weapons such as IR guided air-to-air missiles, gun pods, rockets and up to 500 lb class general-purpose bombs. For combat operations the back-seater can act as Weapons System Officer and the aircraft is equipped with advanced stores management and mission systems that allow great accuracy in delivering its payload, coupled with easy to manage weapons integration solution available on the market.

The aircraft is fitted with straightforward, essential systems for maximum safety and reliability with minimum maintenance needs. As result the M-345 is a turbofan powered high efficiency trainer with multirole capabilities and life-cycle costs comparable to those of heavy turboprops but with much better performance. Operators benefit from a two-level maintenance concept (Organisational and Intermediate) for aircraft, equipment and systems. An on-board Health & Usage Monitoring System (HUMS) enables data-collection and monitoring.

For training the key feature of the M-345 is the in-flight Embedded Tactical Training System (ETTS) suite, able to generate realistic threats, targets, Computer Generated Forces and weapons, allowing pilots to seamlessly pass from training to real missions without having to change aircraft. The M-345 is the “core” of an advanced Integrated Training System which includes a complete package of Ground Based Training Devices, including Full Mission Simulators (FMS) and dedicated tools for Mission Training Management with effective Live, Virtual and Constructive capabilities.

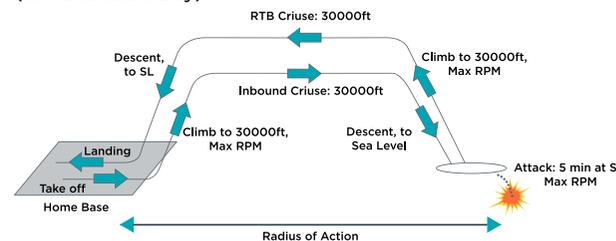
## COIN/CAS MISSION PROFILE

Configuration: 2x 7-70 Rocket Pods + 2x 20mm Gun Pods  
 Radius of Action: 135 nm (250 km), Mission Time: 95 min (ISA Standard Day)



## GROUND ATTACK MISSION PROFILE

Configuration: 4x Mk-81 LDGP  
 Radius of Action: 210 nm (390 km), Mission Time: 105 min (ISA Standard Day)



## CHARACTERISTICS

### WEIGHTS

Take-off (Trainer)	7,715 lb	3,500 kg
Take-off (Maximum)	9,920 lb	4,500 kg
Max External Stores	2,425 lb	1,100 kg

### POWERPLANT

Engine, turbofan:	Williams FJ44-4M-34	
Max 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	704/787
		KTAS
		km/h
Limit Speed	400 KEAS/ 0.8 MN	741 km/h
Stall Speed (Landing, 20% fuel)	92 KCAS	170km/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