

AERMACCHI

Aircraft	SF260E	SF260TP	M290TP Redigo	S211A	MB339CD/FD	M346
Mission	Elementary trainer	Elementary trainer	Basic trainer	Basic trainer	Adv trainer/light attack	Adv trainer/light attack
Powerplant	1 x Textron Lycoming AEIO-540-D4A5	1 x R-R 250-B17D	1 x R-R 250-B17F	1 x P&WC JT15D-5C	1 x R-R Viper 680-43	2 x Honeywell F124-200
Max power (hp)/thrust dry (lb)/thrust reheat (lb)	260	350	450	3,190	4,340	6,250
Wing span (m)	8.35	8.35	10.6	8.51	11.22	9.72
Wing area (m ²)	10.10	10.10	14.75	12.60	19.3	23.52
Length (m)	7.10	7.40	8.53	9.53	11.24	10.64
OEW (kg)	840	820	990	2,100	3,334	4,625
MTOW (kg)	1,350	1,350	1,900	4,000	6,350	9,500
Max load (kg)	300	300	800	1,000	1,815	3,000
Range (km)	2,018	1,554	1,400	1,950	2,200	2,535
Endurance	6h 45min	6h 20min	7h	4h 15min	3h 50min	3h 10min
Hardpoints	2	2	6	5	6	9
Cruise (kt)	175	215	190	305	M0.74	585
M _{mo}	-	-	-	M0.82	M0.85	M0.95
Ceiling (ft)	20,000	25,000	25,000	45,000	45,000	45,000
Crew/passengers	2	4	2-4	2	2	2
Internal fuel (kg)	236	228 litres	292	718	1,780 litres	1,950
Fuel, opt ext (litre)	160	160	160	-	660	1,180
Air refuel?	No	No	No	No	Yes	Yes
Comments						MB339B/C is similar

expected to cover 700 flights. An initial operational clearance will be reached in 2005, with full clearance in late 2007.

MB339

Unlike earlier MB339s, the MB339CD has Thales digital avionics, HUDs in both cockpits and HOTAS controls, all linked by a 1553B databus. MB339FDs are export CDs, while Eritrea's MB339CEs are of a similar standard.

The MB339 was designed to meet an Italian air force requirement for an advanced trainer, the prototype flying in August 1976. Italy's 90 MB339s are receiving structural and avionics upgrades to extend service life by 10 years.

Structural changes include improved corrosion resistance, additional inspection panels and a

load measurement system. Much of this work will improve maintainability.

Avionics and other changes include a 1553B databus, and INS/GPS navigation.

S211

Aermacchi is reviewing options for S211 upgrades, making it more competitive against the latest generation of turboprop-powered trainers. Aermacchi acquired the S211 when it took over SIAI Marchetti in 1997, but subsequently has built no examples.

It is considering a new glass cockpit, with HUDs for each pilot and three NVG-compatible, liquid-crystal MFDs for each occupant. The layout is similar to the M346 and the glass-cockpit-equipped MB339. Other additions include HOTAS, a new mission computer and an embedded GPS navigation system.

Aermacchi is also considering a 28% thrust increase. As a result, maximum speed would increase to 380kt, and rate of climb would rise.

Take-off weight would also be increased from 2,750kg to 3,100kg and the aircraft's fatigue life would be extended to 14,400h.

SF260

Aermacchi continues to market piston and turboprop versions of the former SIAI Marchetti SF260. They are essentially the same from the engine firewall aft. Piston aircraft have a 260hp Lycoming engine, either a direct-injection AEIO-540 (SF260E) or carburetted O-540 (SF260F). The SF260TP has a 350hp R-R 250-B17 turboprop.

AERO VODOCHODY

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L-39/L-139/L-39MS/L-59 Albatros

Aero Vodochody offers upgrades for the L-39C, which was the standard jet trainer in the former Warsaw Pact countries from the mid-1970s.

As well as the tandem-seat trainer, target-tug and ground-attack versions – the L-39ZA – were delivered. Aero's L-39 modular upgrade programme offers a service life extension to 10,000h; two additional pylons underwing and a centreline pylon and compatibility with Eastern and Western weapons and external fuel tanks; upgraded avionics; HOTAS controls; a zero-zero ejection seat; and toe-actuated brakes.

Several L-39 derivatives were developed, including the L-139, with a Honeywell TFE731 engine, Honeywell avionics and Flight Visions HUD. The L-39MS/L-59 that flew in September 1986 is a development of the L-39/139 with a Slovak PSLM DV-2 engine and improved avionics.

L-159 ALCA

The Advanced Light Combat Aircraft (ALCA) is one of the major procurement programmes of the Czech air force, which has 72 on order in single-seat L-159A and two-seat L-159B versions.

The first L-159As were delivered in December 2000. The L-159 is powered by a digitally controlled Honeywell F124 and equipped with Boeing-integrated avionics that include Honeywell colour MFDs, INS/GPS, Flight Visions HUD and mission computer, FIAR Grifo multimode pulse-Doppler radar, BAE Sky Guardian RWR and Thales Vinten countermeasures system.

The two-seat L-159B is a lead-in fighter/ weapons trainer, which flew for the first time in June 2002. Although the proof-of-concept L-159 flown in August 1997 was a two-seater, Aero concentrated on the single-seat L-159A light attack aircraft.

The single-seat L-159A first flew on 18 August, 1998. The Czech air force will use the

ADA/HAL

Aircraft	LCA
Mission	Fighter/attack
Powerplant	1 x GTRE Kaveri
Max thrust dry/wet (lb)	11,540/18,075
Wing span (m)	8.2
Wing area (m ²)	38
Length (m)	13.2
OEW (kg)	5,500
MTOW (kg)	8,500
Max load (kg)	-
Range (km)	-
Endurance (h)	-
Hardpoints	7
Cruise (kt)	-
M _{mo}	M1.6
Ceiling (ft)	-
Crew/passengers	1
Internal fuel (kg)	-
Fuel, opt ext (litre)	-
Air refuel?	yes
Comments	Take-off weight is clean configuration