

Progetto AleniaSIA (sotto progetto M346)

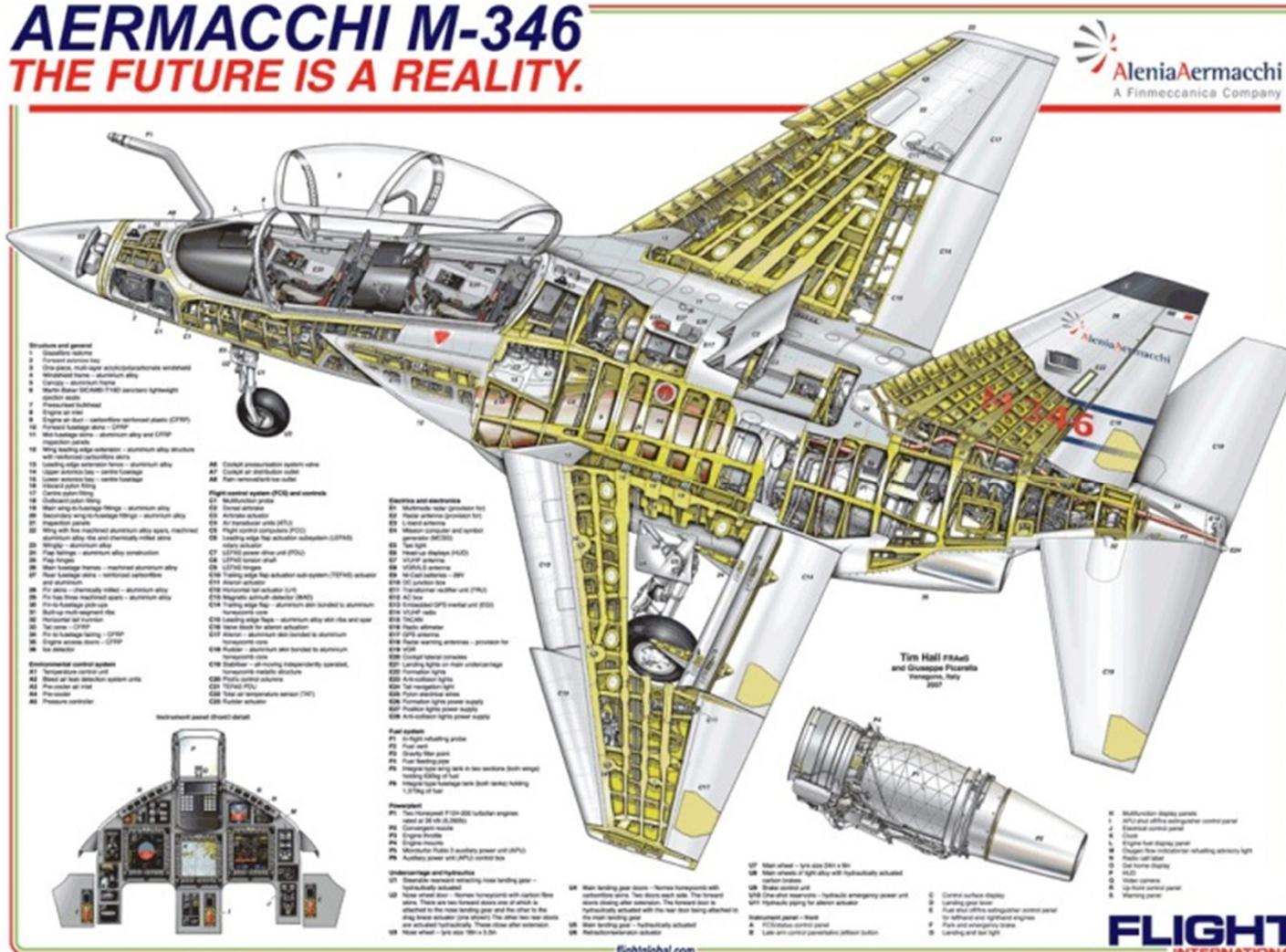


Un accordo tra la Italsystem S.r.l. ed Alenia SIA (Ex Società Italiana Avionica, adesso confluita al 100% nella BU-Velivoli di Leonardo S.p.A | Alenia Aermacchi S.p.A). Il progetto è stato finanziato da fondi MIUR/POR/EU ed il tender verso Alenia Aermacchi S.p.A era Alenia SIA a Torino (la ex controllata di Alenia Aermacchi S.p.A). Nel 2007 ancora non si era perfezionata la fusione societaria tra Società Italiana Avionica di Collegno, TO ed AleniaSIA, TO.

M346 Specifiche tecniche

AERMACCHI M-346
THE FUTURE IS A REALITY.

AleniaAermacchi
 A Finmeccanica Company



- Structure and general**
- 1 Glass-fibre radome
 - 2 Forward access door
 - 3 One-piece multi-layer anti-deformation windshield
 - 4 Windshield frame - aluminium alloy
 - 5 Canopy - aluminium frame
 - 6 Main frame (M346) (170) section lightweight section seat
 - 7 Pressurized fuselage
 - 8 Engine air inlet
 - 9 Engine air duct - carbon-fibre reinforced plastic (CFRP)
 - 10 Forward fuselage skin - CFRP
 - 11 Mid-fuselage skin - aluminium alloy and CFRP
 - 12 Inboard cabin fitting
 - 13 Wing leading edge extension - aluminium alloy structure with reinforced carbon-fibre skins
 - 14 Leading edge extension frame - aluminium alloy
 - 15 Upper antenna fairing - carbon-fibre
 - 16 Lower antenna fairing - carbon-fibre
 - 17 Inboard cabin fitting
 - 18 Canopy cabin fitting
 - 19 Outboard cabin fitting
 - 20 Main wing-to-fuselage fitting - aluminium alloy
 - 21 Secondary wing-to-fuselage fitting - aluminium alloy
 - 22 Inboard pylon
 - 23 Wing with five machined aluminium alloy spars, machined aluminium alloy ribs and chemically treated skin
 - 24 Wingtip - aluminium alloy
 - 25 Fuel tank - aluminium alloy construction
 - 26 Fuel fitting
 - 27 Main fuselage frame - machined aluminium alloy
 - 28 Rear fuselage skin - reinforced aluminium alloy and aluminium
 - 29 Fuel skins - chemically treated - aluminium alloy
 - 30 Fuel tank reinforcement spars - aluminium alloy
 - 31 Fuel-to-fuselage joint-up
 - 32 Machined reinforcement ribs
 - 33 Reinforced air number
 - 34 Tail cone - CFRP
 - 35 Fuel-to-fuselage fitting - CFRP
 - 36 Engine exhaust duct - CFRP
 - 37 Air intake

- 38 Control pressurization system valve
 - 39 Cockpit air distribution outlet
 - 40 Main electrohydraulic valve
- Flight-control system (FCS) and controls**
- 41 Multifunction probe
 - 42 Sensor antenna
 - 43 Antenna actuator
 - 44 Air transducer unit (ATU)
 - 45 Flight control computer (FCC)
 - 46 Leading edge flap actuator sub-system (LEFAS)
 - 47 Main actuator
 - 48 CFM56 power drive unit (PDU)
 - 49 LEFAS sensor shaft
 - 50 LEFAS torque
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- Electrics and electronics**
- 84 Microwave radar (precision fit)
 - 85 Radar antenna (precision fit)
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 - 88 Mission computer and sensor processor (MCP)
 - 89 Fuel tank
 - 90 Radar antenna (MCP)
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- Undercarriage and hydraulics**
- 151 Steerable nose-wheel retracting nose landing gear - hydraulically actuated
 - 152 Nose wheel door - fuselage horizontally with carbon-fibre skins. There are two forward doors one of which is attached to the nose landing gear and the other to the wing track structure (one retract). The other two rear doors are actuated hydraulically. These close after extension
 - 153 Main wheel - tyre size 36" x 3" x 3"
 - 154 Main landing gear doors - fuselage horizontally with carbon-fibre skins. There are two forward doors one of which is attached to the nose landing gear and the other to the wing track structure (one retract). The other two rear doors are actuated hydraulically. These close after extension
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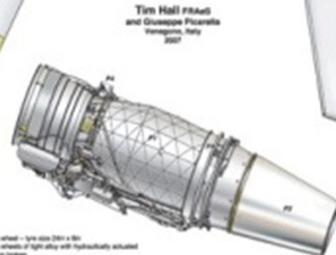
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M346-Software Avionico di bordo

Sotto sistema di software avionico:

- **Componente RTM: Run Time Monitor** è una componente software di un sistema operativo realtime sperimentale (venditore originale **BAE System PLC**) che avrebbe gestito il sistema **Fly-by-Wire del M346** .

Ruolo: *Avionic software requirements analyst (analisi conformità di requisiti SRS,SDD, code e requirements review, forward/reverse engineering)*

Linguaggi: C, Ada95

Tools: *Serena PVCS, Word, Excel, DO178-B, MISRA-C, MIL STD-498, Code Composer, ADA GPS*