

Venegono Superiore (VA) October 9th, 2014

Finmeccanica-Alenia Aermacchi selects Williams International FJ44-4M to power M-345 HET

Following a selection process which included detailed preliminary studies and ended up in a formal Request For Proposal opened to several Engine Manufacturers, Finmeccanica-Alenia Aermacchi selected Williams International FJ44-4M to power the new M-345 HET (High Efficiency Trainer) aircraft.

FJ44-4M is the fully aerobatic version of FJ44-4A engine. It is a modern two–spool co–rotating turbofan engine with medium bypass ratio, mixed exhaust, and high cycle pressure ratio.

FJ44-4M is in the class of 3400 lbs thrust with low fuel consumption, and takes advantage of Williams well recognized track in maintenance services in order to further reduce operating costs.

The two Companies already started joint activities to finalize the collaboration framework which will lead to integrate the engine into M-345 HET aircraft in the next couple of years.

Background Information

M-345 HET represents the most recent solution proposed by Alenia Aermacchi for the basic/advanced phase of the military pilots training syllabus. The M-345 HET provides the Air Forces with a very cost-effective solution, thanks to the best in class performance level coupled with significantly low acquisition and operational costs. Cost figures, in fact, are very similar or even lower than those of powerful turboprops now in the market which, although being of the same weight class of the M-345 HET and equipped with similar on-board systems, provide definitely lower performance and, consequently, lower training effectiveness.

In June 2013 Alenia Aermacchi and General Defence Secretary/DNA (National Armaments' Directorate) of the Italian Defence Ministry signed an agreement to jointly define the operational requirements and to collaborate in the development of a new basic/advanced trainer aircraft, called M-345 HET (High Efficiency Trainer), conceived in the legacy of S-211/M-311 experience. Development is undergoing and the aircraft entry into service is envisaged at the end of 2017.

M-345 HET Technical Data

- Enhanced performance (speed, energy and maneuverability)
- Improved maintainability and accessibility
- Design load factors of +7/-3.5 g with high fatigue life
- Latest generation turbofan Engine with reduced fuel consumption and maintenance tasks
- State-of-the-art digital avionics and Embedded Training Simulation capability
 - ✓ HUD (Head Up Display) in the front cockpit, a HUD repeater in the rear cockpit;
 - ✓ Three Multi-Function Displays in each cockpits;
 - ✓ HOTAS (Hands On Throttle-And-Stick) controls;
- Excellent potential as Light Combat Aircraft
- Life Cycle & Acquisition Cost comparable to a heavyweight turboprop aircraft.