

Turin, 4 March 2013

Air Refueling: Electrostatic Discharge Test on the M-346

The Electrostatic Discharge (ESD) Test for the certification of the M-346 aircraft, configured with external tanks, was successfully performed over the last couple of weeks.

The test was performed at Alenia Aermacchi plant of Venegono Superiore with the external support of the British COBHAM Laboratory.

The ESD is an event which is likely to occur during air to air refuelling, due to the different accumulations of electrostatic charges between the tanker and the receiving aircraft; when the M-346 air refuelling probe approaches the tanker basket, the differences between the two aircraft can generate a discharge higher than 100.000 volts.

The purpose of the test was to demonstrate that, at the electrostatic discharge occurrence, no damages and/or malfunctions on the M-346 electronic systems and no sparking inside the aircraft tanks, that could result in an explosion, were detected.

The ESD Test was performed with the M-346 aircraft configured for flight, with all the aircraft systems operative and with the engines running, verifying during the test the proper behaviour of all the aircraft systems with particular attention given to the safety critical systems.

The positive results of the ESD Test is an achievement for the clearance of air-to-air refuelling with the M-346 aircraft in a series configuration with external tanks installed and add a new step on the road map for the M-346 aircraft full trainer certification process.