Boeing 787 Dreamliner Structure Test a Success

ROME, July 2 /PRNewswire-FirstCall/ -- Alenia Aeronautica, a Finmeccanica company, successfully completed destructive testing on the horizontal stabilizer of the Boeing (NYSE: BA) 787 Dreamliner. The test took place at Alenia's Pomigliano plant in Naples with Boeing engineers and representatives of the U.S. Federal Aviation Administration (FAA) and European Aviation Safety Agency (EASA) in attendance. The stabilizer is made at the Alenia Aeronautica plant at Foggia in Italy's Puglia region.

Previous physical testing had shown that the horizontal stabilizer meets its certification requirement to withstand 150 percent of the maximum aerodynamic load it ever could encounter in flight. Once Alenia engineers proved that, they then tested the horizontal stabilizer to see just much load the horizontal stabilizer could withstand before failure. In that test, the structure did not break until well in excess of the required 150 percent of limit load. The destructive test was the culmination of seven months of testing conducted by Alenia and Boeing.

"This is quite an achievement," said Nazario Cauceglia, Alenia Aeronautica's chief technical officer. "The test validates the innovative multispar design concept and consolidates the spirit of cooperation established between Alenia and Boeing engineers on this difficult task, and on the entire 787 program."

"Successful completion of the 787 horizontal stabilizer failure test marks the culmination of an innovative design and development activity," said Randy Harley, vice president and general manager, 787 Engineering and Technology. "Working together, the 787 team has once again confirmed the power of an integrated partnership."

Previous tests at Pomigliano gauged the structure's capability to withstand various extremes in aerodynamic pressures, such as upward and downward deflection and extreme asymmetric loads.

With static testing complete, Alenia now will proceed to fatigue testing. Alenia engineers at Pomigliano will subject a complete horizontal stabilizer to repeated flexing, meant to demonstrate the stabilizer's ability to carry repeated operational load cycles representative of its design life. To obtain certification the tail will be tested to at least three times its design life. The testing program is slated to conclude with Boeing conducting a bird strike test at its facilities in the U.S.

SOURCE: Boeing

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