



Boeing Officials Bring 787 to Eglin AFB for Weather Tests

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EGLIN AIR FORCE BASE, Fla. (AFNS) -- Officials at the McKinley Climatic Lab here are hosting Boeing's newest passenger aircraft, the 787 Dreamliner, for two weeks of cold and hot weather testing.

The new plane arrived April 18 and was moved into the lab to begin its cold-weather testing with temperatures reaching minus 45 degrees.

The lab technicians went to work putting the 250-person aircraft into a deep freeze.

"Depending on conditions, we can have the lab at negative 45 degrees in less than 18 hours," said Matt McCarty, a test engineer with McKinley Lab. "But once you get this place cold, it stays cold."

The McKinley Lab, with its temperature gauge on the front of the hangar has been at Eglin AFB since 1947 and is the largest climatic lab in the world. The facility, which falls under the 46th Test Wing, is primarily used for military testing, but provides services to commercial companies and even foreign countries.

According to McKinley officials, the lab can produce enough refrigeration power to run 1,500 home air conditioning units. Depending on the requirements and conditions, a day in the lab could cost the customer between \$20,000 and \$40,000.

The benefits received from testing in McKinley Lab outweigh the cost since the lab stays booked. Customers must reserve time up to a year in advance in some cases, according to lab officials.

Two months ago, Boeing officials caught a break when they needed to begin testing cold and hot weather start up procedures and the lab had an opening. This is the first time Boeing officials have used the test facility to evaluate one of its commercial aircraft.

Boeing officials are particularly interested in the aircraft startup procedures after the equipment is exposed to the extreme conditions. At the height of the cold and heat, test administrators will perform the steps required to prepare the airplane for flight release and operation. Sensors and monitors will allow the test team to determine if all systems hardware and software operate as expected.

"We have Dreamliner customers who will operate the 787 in a wide variety of environments throughout the world," said Scott Fancher, the vice president and general manager of the 787 program for Boeing. "This testing is about ensuring the airplane meets the expectations of our customers."

The cold weather test ended April 25, which led to a quick thaw. Then engineers used the heat lamps to simulate a 115-degree summer flightline, all in a controlled environment without ever having to move the aircraft.

"These folks at the lab have been fantastic to work with and provided us everything we need with minimum of prep time," said Tom Sanderson, the 787 test director. "We are truly grateful for the opportunity."



A Boeing 787 Dreamliner "soaks" in minus 45 degree temperatures inside the McKinley Climatic Lab April 21, 2010, at Eglin Air Force Base, Fla. The new aircraft is being tested in extreme heat and cold for two weeks prior to its release at the end of year. The Climatic Lab, which began testing in 1947, is the largest climate testing facility in the world. (U.S. Air Force photo/Samuel King Jr.)

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