Boeing's 787 A 'Joy To Fly'

George Tibbits, Associated Press Writer

EVERETT, Wash. (AP) — The first flight of Boeing's new 787 jetliner brought no surprises — exactly what pilots, engineers and company officials had anxiously sought for the long-delayed aircraft.

"The airplane responded just as we expected," Randy Neville, one of the two pilots, said after touchdown Tuesday at Seattle's Boeing Field. "It was a joy to fly."

Boeing has billions of dollars and its reputation riding on the sleek, blue-and-white aircraft that lifted off from Everett's Paine Field on a flight over western Washington, beginning the extensive flight testing program needed to obtain Federal Aviation Administration certification.

The widebody jet, the first commercial airplane made mostly of lightweight composite materials, is more than two years behind schedule because of parts problems and labor trouble. Chicago-based Boeing was determined the plane would fly before the end of the year to prove the program was back on track.

Neville and chief pilot Mike Carricker performed a variety of basic system checks, including testing the landing gear and the flaps, before landing about three hours later. Deteriorating but typical Northwest winter weather — rain, cold and wind — brought the plane back about an hour earlier than planned.

Before takeoff, the 186-foot-long aircraft paused for several minutes at the end of the runway for final checks, adding to the tension for Boeing employees, customers and airline executives standing on the tarmac. Loud cheers and applause built as the plane started its takeoff roll and took to the sky, its two huge engines kicking up clouds of mist.

"It's very historical. I can't think of a thing about it that I'm not impressed with," said Joe Bierce, a flight instructor for Delta Connection in Jacksonville, Fla., who was among the 25,000 people who gathered to watch the takeoff.

The 787 is a radical departure in aircraft design. Where other passenger jets are made mostly from aluminum and titanium, nearly all of the 787's fuselage and wings are made of lightweight composite materials such as carbon fiber, accounting for about 50 percent of the aircraft by weight.

Those materials have long been used on individual parts such as rudders, and on military planes, but the 787 is the most ambitious use of the technology aboard a passenger plane.

Boeing says the aircraft will be quieter, produce lower emissions and use 20 percent less fuel than comparable planes, while giving passengers a more comfortable cabin

with better air quality and larger windows.

Officials cut the flight a little short after rain reduced visibility at Boeing Field and the aircraft ran into poor weather off the Washington coast.

Carriker said there was a "very, very aggressive plan" for tests on the initial flight and that he and Neville were able to accomplish about half those goals. The weather prevented them from flying the long straight stretches they expected, he said, but did allow them to test the plane in turbulence and icing, things not normally encountered on a first flight.

"There were no major issues with the plane, which considering the complexity is a huge statement," he said.

The plane is the first of six 787s Boeing will use in the nine-month flight-test program that will subject the aircraft to conditions well beyond those found in normal airline service, including temperature extremes, flying on one engine and slamming on the brakes at takeoff speed.

Boeing, which has orders for 840 of the jets, plans to make the first delivery to Japan's All Nippon Airways late next year. The 787 remains Boeing's best-selling new plane to date, though some airlines have been forced to cancel or postpone purchases because of the weak economy.

For the first time, Boeing has relied on suppliers around the globe to build nearly all components of the plane, which are then assembled in Everett. But that approach has proved problematic, with ill-fitting parts and other glitches hampering production.

The first flight was supposed to be in 2007, with deliveries the following year. Boeing was forced to push that back five times — delays that have cost the company credibility, sales and billions of dollars.

Most recently, Boeing needed to reinforce the area where the wings join the fuselage. Tests were completed on that fix just two weeks ago.

An eight-week strike last year by Seattle-area production workers also caused problems and factored into Boeing's decision in October to create a second 787 assembly line in North Charleston, S.C.

Scott Fancher, vice president and general manager of the 787 program, said he believes both the 200-day flight test program and efforts to ramp up 787 production will go as planned. The next test flight for the first 787 is expected in about a week, Carriker said.

The version being tested will be able to fly up to 250 passengers about 9,000 miles. A stretch version will be capable of carrying 290 passengers and a short-range model up to 330.

Boeing rival Airbus has developed the A350 XWB as the main competitor to the 787 line. Like Boeing's jetliner, the Airbus plane also features composite materials, including in the fuselage and wings.

Airbus says it had received 505 orders for the A350 from 32 customers as of November. The European company is aiming to deliver the first plane in 2013.

Tuesday's flight "was very mundane on takeoff and very mundane on the landing, and that's exactly what you want on the first flight of an experimental airplane," said analyst Scott Hamilton of Leeham Co., an aviation consulting firm in Issaquah, east of Seattle. "Boring is good in aviation."

But the significance, he said, lies in the 787's cutting-edge design and the way it's being manufactured.

"All of this is going to set the stage for all Boeing planes in the future," Hamilton said. "It's a very important milestone in the history of the company."

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Associated Press Writer Manuel Valdes contributed to this report from Seattle.