Design of the Boeing 757-300 Nearing Completion

Boeing engineers have released for production 90 percent of the design drawings necessary to build the new Boeing 757-300.

The achievement marks a key milestone in the design of the largest Boeing single-aisle airplane, which is derived from the 757-200.

"Reaching this milestone means that we are nearing completion of the development phase of this airplane program and moving ahead to production," said Jack Gucker, vice president of Boeing 737/757 Derivative Programs. "Our program is right on track and we're proceeding toward an on-time delivery of the first 757-300 in January 1999."

With most engineering drawings complete, parts for the airplane are being manufactured and delivered. Assembly of the 62-foot 5-inch wings for the first 757-300 began in September. Assembly of the first 757-300 fuselage, which uses the same production line as the 757-200 at the Boeing factory in Renton, Wash., started in early November.

Although the 757-200 was first produced in 1981 and 1982 -- when most engineering releases were hand-drafted -- much of the 757-300 has been designed digitally, using high-technology, computer-aided design software.

The new portions of the 757-300 -- such as the interior of the passenger cabin, the 12 extra-long skin panels for the fuselage and an air-conditioning system that has been enhanced to serve an additional 40 passengers -- have been digitally designed.

About 80 percent of the aircraft's wing design is digital, even though the 757-300's wing essentially is the same as the 757-200. That is because drawings must be digitized to feed information into a computerized spar-assembly system that is being used for the first time to manufacture Boeing 757 wings.

Drawings for other parts of the airplane that are identical to the 757-200 also have become digitized as changes have been made to the 757-200 over the years. Added up, digitally designed components account for more than half the airplane.

The 757-300, which is 23 feet 4 inches longer than the 757-200, will carry 20 percent more passengers and nearly 50 percent more cargo than the 757-200. Because of its higher capacity, the 757-300 will have about 10 percent lower seat-mile operating costs than the -200. Seat-mile costs are the standard measure the industry uses to calculate the cost of transporting one airplane seat one mile.

The first 757-300, which was ordered by Condor Flugdienst, a German charter carrier, in September 1996, is due to roll out of the factory May 31, 1998.

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