



Getting ready to roll

787 team's aiming for 07/08/07 rollout—and to fulfill promises

By SCOTT LEFEBER AND TRAVIS NESS

KeeP this date in mind: July 8, 2007. That's 07/08/07 in the United States.

It's an easy date to remember for Boeing stakeholders—especially for employees of Boeing and its global partners who support the Boeing 787 Dreamliner airplane. On that day, the first 787 is set to roll out of the Boeing factory in Everett, Wash.

Employees on the 787 team at Boeing and its supplier partners are working toward the July 8 787 Dreamliner Premiere—one of the many milestones along the path of this revolutionary airplane. Through their efforts and use of innovative Lean manufacturing processes, the 787 Dreamliner soon will roll out of the factory—and will be aloft later this year, on its way to provide improvements in passenger comfort, economic performance and environmental stewardship.

DREAMLIFTER AS 'INTEGRATOR'

A big part of turning the 787's promises into performance is the task of coordinating the airplane's large supply network.

As 787 parts take shape around the world, the main link to the global manufacturing network has already hit the ground running. The first of a fleet of four Boeing Dreamlifters—specially modified 747s that transport 787 major assemblies—has been busy in recent months. Picking up and dropping off 787 parts from program partners around the world, the Dreamlifter is demonstrating its importance in the production of the Dreamliner. The recent delivery flights are also serving as flight tests for the Dreamlifter's certification.

"The Dreamlifter is an unbelievable integrator that is changing the way we do business," said Gary Blattenbauer, 787 senior global logistics manager. "I like to refer



The first composite wings for the Boeing 787 Dreamliner arrived last month at the Boeing facility in Everett, Wash. They were flown on the Dreamlifter, a specially modified 747 that transports 787 major assemblies. The aircraft brought the wings from Nagoya, Japan.

ED TURNER PHOTO

Watch the 787 rollout event live on 07/08/07

The 787 Dreamliner Premiere will be available for the world to view. In an unprecedented move, the event will be broadcast live via satellite TV and a live webcast in nine different languages at 3:30 p.m. Pacific time on July 8—or 07/08/07 in the United States.

To view the event live

- View a webcast over the Internet. Visit www.boeing.com or www.newairplane.com to be connected.
- In the United States, the show will be broadcast live on the Dish Network satellite TV system and DirecTV system. There is no additional charge to those subscribing to these systems. Further details and channel information will be posted on www.boeing.com closer to the 787 rollout event date.
- The show will be broadcast in Europe, Asia and the Middle East on a number of different satellite systems. Additionally, the broadcast can be received by anyone with a DVB "Direct Video Broadcast" satellite receiver. Channel information will be published on www.boeing.com closer to the 787 rollout event date.

The hour-long ceremony will be produced and broadcast in nine languages, using language-specific commentators broadcasting in their own cultural style. These languages include English, Arabic, Chinese, French, German, Japanese, Korean, Italian and Spanish. In addition, closed captioning will be provided in English.

Not sure what time 3:30 p.m. Pacific time on Sunday, July 8, is at your location? Here's a handy table.

Location	Day and time
Seattle (U.S. Pacific time)	Sunday, 3:30 p.m.
Auckland, New Zealand	Monday, 10:30 a.m.
Tokyo	Monday, 7:30 a.m.
Seoul	Monday, 7:30 a.m.
Beijing	Monday, 6:30 a.m.
Mumbai	Monday, 4 a.m.
Rome	Monday, 12:30 a.m.
London	Sunday, 11:30 p.m.
South Carolina (U.S. Eastern time)	Sunday, 6:30 p.m.
Wichita, Kan. (U.S. Central time)	Sunday, 5:30 p.m.

to the Dreamlifter as a time machine: We are reducing the travel time incredibly."

First to arrive at the 787's final-assembly site via the Dreamlifter was the horizontal stabilizer, on April 24. Manufactured by Alenia Aeronautica in Italy, the horizontal stabilizer was transported in pieces. The shipment configuration measured 9 feet wide, 13 feet high and 42 feet long (2.7 meters, 4 meters and 12.8 meters respectively). Other parts arriving at Everett include the composite center fuselage sections known as Sections 44 and 46, the aft fuselage sections known as Sections 47 and 48, and the wing box.

Scheduling and coordinating the Dreamlifter pickup and deliveries requires an

around-the-globe team, Blattenbauer said.

"We treat each payload as a separate mission," he added. "It's a huge communication effort to coordinate all of the details. We have constant communication, connecting all our global sites, to make sure we have everyone in the right place at the right time."

Evergreen Aviation Technologies Corp., part of Taiwan's Evergreen Group, is modifying the fleet of Dreamlifter airplanes at its facility in Taiwan. Separately, Evergreen International Airlines, Inc., a subsidiary of Evergreen International Aviation Inc., will operate the fleet of aircraft and the Dreamlifter's unique ground-support equipment.

"All of our partners have been there for us," Blattenbauer said. "Everyone has stepped up and done a phenomenal job to make this program become a reality."

IN FACTORY, THE FUTURE IS NOW

With components now in Everett, final assembly of the 787 is well under way in the 787 factory, located adjacent to the 777 production line. The factory's 40-26 building has seen a major transformation in the past year and now sports new utilities, cement, work stands, tooling and other support infrastructure for the all-new airplane.

Prior to setup in the factory, digital engineering simulations tested the feasibility of the final-assembly process



Workers at Vought's South Carolina 787 factory prepare to join their first two barrel sections.

PHOTO COURTESY OF VOUCHT AIRCRAFT INDUSTRIES



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The Spirit AeroSystems 787 factory in Wichita, Kan., is busy building noses for 787s. The plant has approximately seven nose sections in work for the program at any given time.

PHOTO COURTESY OF SPIRIT AEROSYSTEMS

by using technology that replicates the production process. The new toolset was launched at a “virtual rollout” event last year and revealed how the process will work. The technology enables Boeing and its business partners to optimize the Dreamliner production system and avoid costly late-stage errors that can occur with untested designs and production planning.

“Every partner that supplies major structural components to the airplane has participated in a final-assembly simulation,” said Tom Cogan, airplane systems integration leader.

Preintegration of wing parts takes place in the factory’s 40-36 building, which was outfitted with a new door to accommodate the large-size 787 structure. The factory features modern equipment, which is almost entirely portable,

allowing the facility to accommodate various 787 models more easily.

“Final assembly has hit its stride and is making steady progress,” said Steve Westby, 787 vice president of Manufacturing and Quality. “We are in an exciting but very important time right now. Our teams are focused and ready to take on any unforeseen challenges that could come up.”

Final assembly continues through the beginning of July, culminating with the first 787 Dreamliner rolling into the factory for the July 8 premiere. First flight is scheduled later this year, followed by flight test and entry into service next May.

STEWARDSHIP OF THE SKIES

In addition to an innovative manufacturing system, the 787 brings with it a new era of environmental responsibility. Throughout the jet age, Boeing has striven

to improve the environmental performance of its product line, and the 787 Dreamliner is no exception.

In fact, the 787 is a revolutionary airplane that has made generational leaps in technology and performance. That’s made it the choice of many airlines around the world that share Boeing’s commitment to the environment.

“Our deeply held belief is that lessening the impact of aviation on the environment is simply the right thing to do, and the introduction of the 787 Dreamliner is a solid example of our efforts,” said Jeff Hawk, director for 787 Certification, Government Relations and Environment.

Among the 787’s environmental benefits:

- By including the latest advancements in technology, materials and manufacturing processes to increase fuel efficiency,



Workers in the Mitsubishi Heavy Industries 787 factory in Japan put the finishing touches on the first set of 787 wings.

LORI GUNTER PHOTO

the 787 will burn up to 20 percent less fuel than today's comparable aircraft. That will reduce greenhouse-gas emissions.

- The 787 will be quieter during takeoffs and landings.
- 787 manufacturing will generate significantly less waste.

"These improvements allow us to build the airplane our customers want: an efficient, environmentally progressive airliner that allows passengers to fly the most direct route to their destination," Hawk said.

CUSTOMERS CAPTIVATED

As shown by its sales achievements, the Dreamliner has captivated airline customers.

The 787 has become the fastest-selling new jetliner in the history of commercial aviation. At press time, 44 different customers collectively have ordered

more than 567 airplanes since launch customer ANA placed the first order in April 2004. The reasons behind the 787's stunning initial sales success are many, but it can be traced back to one basic foundation: focus on the customer.

"The 787's incredible sales numbers are a fine example of the success we can achieve through listening to our customers and executing on our promises," said Mike Bair, vice president and general manager of the 787 program. "The Dreamliner is truly a remarkable airplane, and as it moves closer to rolling out of our Everett factory and taking to the skies, it's important to remember the hard work of our employees and partners. It is their dedication and expertise that is turning this revolutionary airplane into reality and meeting the needs of our customers."

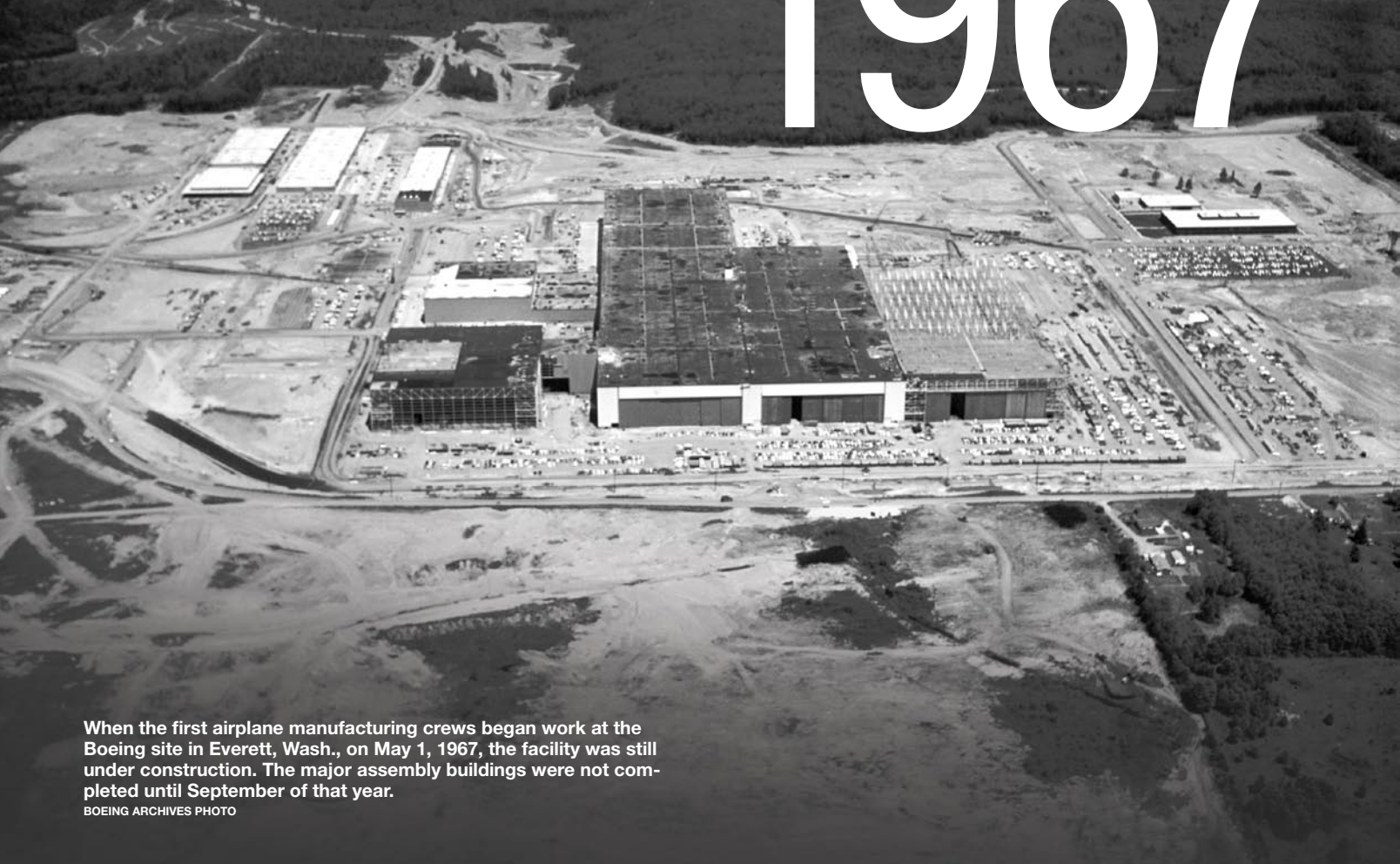
The Boeing strategy of providing cus-

tomers with airplanes capable of flying point-to-point, enabling passengers to fly where they want, when they want, is being validated by the 787's sales record.

"Getting 567 orders since becoming offerable beats such popular airplanes as the 737, the 727 and even the venerable DC-3, each of which enjoyed record-setting success in its own right," said Larry Dickenson, vice president of Sales for Boeing Commercial Airplanes. "We got to this record with a relentless focus on our customers and the environment in which they operate and an understanding of how that landscape is changing. The 787 has changed everything for commercial aviation. That change will accelerate as we turn promises into performance." ■

scott.s.lefeber@boeing.com
travis.b.ness@boeing.com

1967



When the first airplane manufacturing crews began work at the Boeing site in Everett, Wash., on May 1, 1967, the facility was still under construction. The major assembly buildings were not completed until September of that year.

BOEING ARCHIVES PHOTO

That's incredible!

Boeing, Everett community mark 40 years of growth and success

By BILL SEIL

This may be hard to believe, based on what we know today. But the May 1, 1967, opening of the Boeing facility in Everett, Wash., to support 747 manufacturing was announced with little fanfare.

The headline in that week's issue of the *Boeing News* newspaper simply said, "747 Manufacturing Opened for Business This Week." The accompanying article described opening day in a modest, businesslike way: "The massive 747 assembly building at the Everett Branch opened for business Monday. Those pres-

ent recalled the area was a sea of mud less than a year ago and marveled at the speed of construction taking place at the site. But while others marveled, 'pioneer' employees—vanguard of more to follow—donned hard hats and began setting up wing-panel jigs ... and plugging in the machines in the 40-31 bay of the huge manufacturing building."

The first group of employees to work in the buildings was called "The Incredibles." That nickname recognized their efforts to develop the 747, the world's first jumbo jet, despite numerous challenges and an aggressive schedule. While The Incredibles were focused on getting organized that first day, there was a sense of excitement. One employee remarked, "Everything is so new, it's going to be great working in a facility that's still wet with fresh paint."

Now, 40 years later, Boeing and the Everett and Snohomish County community in Washington state recently celebrated the anniversary of a partnership that changed commercial aviation