Boeing 787 Dreamliner Family

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The Boeing 787 Dreamliner has redefined long-haul travel by unlocking hundreds of new nonstop routes and connecting more cities than ever before. Pairing widebody comfort with mid-size economics, the 787 gives airlines the flexibility to open new markets, optimize networks and bring people and places closer together.

With more than 1,270 airplanes delivered, the 787 Dreamliner family serves about 500,000 passengers daily and connects the most countries of any widebody fleet.

Designed for performance

The 787 features advanced aerodynamics, more efficient engines and more electric systems to optimize performance. Combined with the use of carbon-fiber composites in the 787 structure, these design decisions translate to lower fuel usage and reduced maintenance costs as well as longer range and greater route flexibility for airlines. Composites also resist corrosion better than aluminum and do not fatigue, which reduces inspection requirements and downtime and helps airlines keep the airplane flying more often and more profitably.

Engineered for efficiency

With an airframe composed of about 50% composites by weight, the 787 weighs less than traditional metal airplanes — meaning less fuel to lift, cruise, climb and maneuver. This helps airlines achieve a 25% reduction in fuel use compared to the airplanes the 787 typically replaces.

Passenger-inspired, spacious cabin

Boeing’s passenger research directly shaped the 787’s cabin design. With inviting open architecture and large overhead bins, a sense of space is created that feels roomier to passengers onboard.

Endless lighting possibilities

A dynamic LED lighting system brings the full color spectrum to the inflight experience. Airlines can create branded and tailored moments for passengers onboard, like bringing the beauty of the sky inside the cabin by gently shifting light and color to mimic the natural transitions of sunrise and sunset, candlelight at mealtime and everything in between.

Large windows, better views

The 787 has the largest windows of any widebody airplane flying today, so everyone onboard enjoys an outside view. Its electronically dimmable windows let passengers and crew control cabin light while preserving those views.

A smoother, quieter ride

Smoother ride technology and advanced aerodynamics minimize the bumps passengers feel during flight by automatically detecting and countering turbulence.

Additionally, more attention has been paid to the level and quality of noise within the 787 cabin because noise can contribute to a passenger’s sense of fatigue. Innovative solutions like the use of serrated “chevrons” as part of the engine nacelle design along with other technologies reduce noise both inside and outside the cabin.

Arrive feeling more refreshed

Composites also allow the 787 cabin to maintain pressurization at an altitude of 6,000-feet (2,000 feet lower than conventional jets), reducing many physical symptoms common on long haul flights like fatigue and jet lag. The 787 also

features components to enhance air quality in the cabin. By maintaining higher humidity levels and incorporating additional filtration to remove odors and contaminants, passenger comfort is further enhanced.

Advanced flight deck, seamless fleet flying

Designed with direct input from pilots, the 787 flight deck delivers situational awareness from takeoff to touchdown. Large LCD displays, dual heads-up displays and portable electronic flight bag capability give pilots real-time data and situational awareness. A common layout and similar handling characteristics allow pilots to transition between the 787 and 777 with minimal additional training, giving airlines greater flexibility in crew scheduling and operations.

Boeing 787 Flight Demonstrator

The 787 Dreamliner flight demonstrator provides an accurate representation of the standard configuration 787 wide screen and navigation displays for pilots and first officers. The demonstrator software and displays mirror the flight deck as closely as possible with a yoke, throttle, rudder pedals, and production seats. The flight routine follows an approach allowing guests to land at Boeing Field while learning about the innovative technology and fuel efficiency of the 787.