

## **View from the Cockpit: A Pilot Makes the Switch from Airbus to Boeing**

By Cynthia Mullis | Boeing Frontiers magazine

The flagship airliners of Boeing and its rival, Airbus, are famous for comfort and convenience for passengers, profitability and flexibility for airlines, and exceptional environmental performance. However, less attention has been paid to the features of these new-age jets that benefit the people who actually fly them. With new technology, innovative designs and traditional features, the flight decks of the Dreamliner and Airbus planes are designed to make piloting passengers to their destinations as smooth as possible.

Despite these common objectives, Boeing and Airbus are entirely different aircraft. So what is it like for a pilot to make the switch to flying the Boeing 787 Dreamliner after a long career flying Airbus planes?

Pilot Bill Mitchell, a veteran United Airlines pilot with over 15 years experience flying the Airbus A320, shares his insight into the differences between the two airliners from the perspective of a newly minted Boeing 787 Dreamliner pilot.

“The 787 is definitely a nice plane to fly,” says Mitchell.

Traditionally, commercial pilots are certified to fly one type of plane, and gaining an FAA type rating for another aircraft requires complex training. To transition to the 787, Mitchell went through five weeks of ground and simulator training in Miami and Houston. He recently completed his first flight from San Francisco (SFO) to Shanghai Pudong International Airport (PVG) and back. “I have one more IOE (Initial Operating Evaluation) flight to Paris next week, then I'll be on my own,” says Mitchell.

The 787 Dreamliner features a state-of-the-art flight deck that integrates new technologies while maintaining commonality with other Boeing airplanes, especially the 777.

For Mitchell, the biggest adjustment between the 787 and the A320 was going back to using a yoke after years with a control stick. “The control stick is the favorite part of the plane for all Airbus pilots, both ergonomically and control-wise,” says Mitchell. He thinks the conventional control yoke seems archaic for a modern fly-by-wire system, but says, “I've heard a lot of different theories about why Boeing opted for the yoke instead of the control joystick.”

One reason is that similar Boeing controls like the yoke, the MFD (large multifunction displays), and EFB (electronic flight bag) all support shorter transition periods to the 787 from other Boeing aircraft and enable economical mixed-fleet flying. Another idea is that flying with a yoke makes it easy for each pilot to know what the other pilot is doing with his controls, since each yoke moves with the other pilot's inputs. In contrast, with a control stick on the Airbus, one pilot can't see what the other pilot is doing with the controls.

For Mitchell, another big difference between the aircraft is in the FMS (flight management system) and computers. “Boeing and Airbus have completely different philosophies and computer management systems, say Mitchell. “I think Airbus's is more intuitive but I am still getting used to the Boeing system. I hear it takes at least six months to get comfortable with the switch.”

Mitchell also appreciates the practicality of the EFB (electronic flight bag)—the digital equivalent of the pilot’s flight bag—which is standard on the 787. Mitchell explains that the EFB reduces the amount of paper on the flight deck since the software suite contains maps, charts, manuals, onboard maintenance functions, a performance tool, and a document browser, which can all be updated wirelessly or with a maintenance laptop. It also allows flight-performance calculations to be made in real time and transmitted to the flight management computers.

What really sets the Dreamliner apart from its rival airliners, though, is the HUD (head-up display), with one each for the pilot and captain. The HUDs are retractable display units located in front of the pilot, showing all necessary flight information and an artificial horizon to aid in pilot navigation. “Now that I’ve gotten used to the HUD, I am hooked! I’m not sure I could fly without it,” says Mitchell.

The 787 flight deck is designed for comfort, safety, and efficiency. Mitchell describes the cockpit as quieter and more spacious than the A320. He notices that the humidifier and the low cabin altitude help him feel better at the end of a long flight and adds, “I really like the pilot crew rest facility—I actually got some sleep during one of my breaks.”

When asked why he wanted to switch to the 787 after all of his time with Airbus, Mitchell stated, “The Boeing 787 is proving to be a great aircraft for United. Passengers love it and it’s changing the nature of long haul flying. I wanted to be in on something new and exciting.”

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