COMMERCIAL AIRPLANES / BOEING FRONTIERS

Forty years ago, the first Boeing 747 made its initial flight. Since then, Boeing has delivered more than 1,400 747s to 95 unique customers. BOEING ARCHIVES

A D C anniversary

Forty years ago this month, the 747 made its initial flight

By Tim Bader

eb. 9, 1969—a day 40 years ago this month—was a banner day in the annals of Boeing history, and for that matter aviation history. On that cold morning at Everett, Wash.'s Paine Field, Boeing prepared to fly the new 747 for the first time.

Onlookers watched as Pilot Jack Waddell, Co-pilot Brien Wygle and Flight Engineer Jess Wallick eased RA001 into the sky at 11:34 a.m. The 75-minute flight tested the airplane's lowspeed characteristics. It also proved the 747 flew well and was stable, despite the windy conditions.

The test flight ended up being cut short due to a minor structural failure in one of the flaps. Joe Sutter, commonly referred to as the "Father of the 747," watched anxiously as RA001 made its final approach. "Many critics questioned whether an airplane as big as a 747 could safely land," said Sutter. "This was on my mind as RA001 descended to the runway."

After the airplane gracefully descended for a smooth landing, Boeing celebrated its newest airplane. The successful flight validated the enormous gamble that Boeing took to design, build and fly the 747. "Boeing was told that the 747 would never fly, both literally and financially. What the naysayers did not figure on were the Boeing employees who designed and built the 747," said Mike Lombardi, Boeing historian.

When the 747 Program was launched, it was an unprecedented undertaking. It would be by far the world's largest commercial airplane. Few airport runways could accommodate it. For that matter, neither could Boeing factories.

Further complicating matters were the limited resources available at the time. According to Lombardi, in the late 1960s when Boeing began development of the 747, the company was involved in a tremendous number of programs and "the only option to free up the needed engineering resources was to cancel one of the company's other successful programs." That led to Boeing's decision to end its turbine engine business, he added. Despite the risks and challenges, Sutter and his team, referred to as the "Incredibles," successfully designed, built and flew what would be the world's largest commercial airplane for the next several decades. Since the program's beginning, Boeing has secured more than 1,500 orders for models of the 747 family and delivered more than 1,400 to 95 unique customers. The 747 family has conducted roughly 17 million flights taking passengers and cargo approximately 42 billion nautical miles (about 78 billion kilometers)— about the distance of flying to the moon and back 101,500 times. The 747 also has established itself as the leader in the air cargo market by carrying more than half the world's air freight.

The 747 family's accomplishments are sure to grow as Boeing prepares to write a new chapter in the 747 story with the 747-8 Freighter and 747-8 Intercontinental passenger airplane. The first 747-8 Freighter will make its first flight later this year. With the 747-8, Boeing will continue to build on the 747's legacy and ensure the "Queen of the Sky" will remain airborne for years to come. ■ *tim.s.bader@boeing.com*

BY THE NUMBERS: 747-400'S 20 YEARS OF SERVICE

On Feb. 9, 1989, the first Boeing 747-400 entered service with launch customer Northwest Airlines. In time, the 747-400 series would become the most successful model of the 747 family. Here's a look at what the 747-400 has accomplished in its 20 years of service:

694

Total orders for all 747-400s, more than for any other 747 model

5.5 million

Number of 747-400 flights

17 billion

Nautical miles flown by 747-400 models (31 billion kilometers) the equivalent of flying around the world 221,061 times

35 million

Flight hours logged to date (about 4,000 years of flight time)