

Boeing delivers last 747 jumbo jets

- A Monitor Desk Report

Date: 01 February, 2023



US aircraft maker Boeing has ended production of its famous 747 jumbo jet more than half a century after its first flight in 1969. But the company expects the legendary "Queen of the Skies" to fly on for decades to come.

When Boeing's company historian Michael Lombardi talks about the Boeing 747 he strikes an almost sacral tone. His voice turns sonorous as he looks back at the largest civil aircraft project of all time.

"She is a great symbol for humanity and what we do, she has changed the world, shrunk the globe and democratized air travel," Lombardi told DW in Seattle, a few days before the historical event.

On January 31, 2023, a glamorous era in aviation ends, as almost exactly 54 years after its first flight, production of the Boeing 747 has been stopped and the last aircraft delivery is celebrated. Only a small decal near the nose which can open upwards marks this as the final aircraft of the line and depicts the "father of the 747," chief engineer Joe Sutter, who passed away in 2016 as an industry legend.

The Boeing 747 achieved the biggest quantum leap in the history of commercial aviation, as its predecessor, the Boeing 707, accommodated just up to 189 passengers. The 747 was the first airplane dubbed "jumbo jet" because of its wide-

body design. It was initially certified for up to 550 passengers and later capable of carrying up to 660 travelers.

A plane born with a handshake

The conception of the 747 has become a legend and myth: In 1965, the two most powerful men in aviation at the time, Boeing boss William "Bill" Allen and Pan Am founder Juan Trippe, came to a gentlemen's agreement during their annual salmon fishing boat trip. They agreed on building the world's largest passenger aircraft, just with a handshake.

It's hard to believe today, that a project putting the sheer existence of both companies at risk, costing billions of dollars, was launched in such an informal way, without any official documents.

"Trippe said in principle: 'If you build it I'll buy it.' And Allen replied: 'I'll build it if you buy it.' There was no contract signed, but that launched the program," Joe Sutter remembered later.

In the modern digital age of computer design and virtual 3D models that can be created with a few mouse clicks, it's hard to imagine what challenge the engineers on the Boeing 747 design team were facing in the 1960s. It was clear that the airlines, Pan Am most of all, wanted a much larger aircraft than had ever been built before, a class that was uncharted territory.

For Juan Trippe, the 707 was the benchmark. He had held onto the idea to build a double-deck aircraft for a long time, basically wanting to put two 707 fuselages on top of each other. Still, in 1965, that idea was given up.

The 747 was supposed to just bridge the gap for the period of time until most intercontinental passengers would fly supersonic anyway, either on Concorde or its US competitor Boeing SST — also called Boeing 2707, abandoned in 1971 — which were under development at the time.

After a short period as an airliner, the 747 was supposed to be operated as a freighter. The cockpit was therefore put above the main deck — as for simple loading a nose that would open upwards was needed. This configuration created a small area behind the cockpit, the famous "hump" of the 747.

Instead of following initial plans to build two decks above each other, the 747 was equipped with just one main deck. This, however, offered the widest cabin ever in passenger aircraft at over six meters in diameter, to be flexible enough to put on either seats or two cargo containers side by side.

The 'spacious age' of flying begins

On April 13, 1966, Pan Am announced an order for 25 Boeing 747s costing \$525 million — worth about \$4.8 billion today — which officially launched the 747 program.

In June 1996 Boeing purchased about 315 hectares of forest swampland near Paine Field airport in Everett, north of Seattle in the US state of Washington. It was earmarked as the production and assembly site of the 747, and it still ranks as the world's largest building in terms of volume today.

Building them was a relentless task under immense time pressure. The factory was built at the same time the design process on the 747 was still ongoing. Everything was planned to the minute – the prototype was due to fly within two years, while the rollout of the Boeing 747 was set early on for September 30, 1968.

Less than three years after Pan Am had signed a letter of intent to order, and only two-and-a-half years after the wide-body design was agreed on, the new "Queen of the Skies," as it was also dubbed, appeared.

On February 9, 1969, the 747 ushered in the "spacious age" in flying when it performed surprisingly flawlessly during its maiden voyage. The first 747-passenger service of Pan Am took off from New York to London on January 21, 1970. By 1975, the growing global 747 fleet had already carried more than 100 million passengers. In October 1993, Boeing reached the important milestone of delivering its 1,000th plane received by Singapore Airlines at the time.

Revamped 747 to remain 'Queen of the Skies'

As proof of the longevity of the 1960s concept, a decision was taken in 2005 to launch a new generation of 747s, despite the fact that there now was a competitor in the form of a full two-deck Airbus A380. Boeing collaborated with Lufthansa, which had been among the first operators in the early 1970s.

The last version Boeing 747-8 was designed with the active participation of Boeing veteran Joe Sutter, still going strong at the time. Four decades after the first 747s had been produced, the fuselage was stretched for the first time, making the 747-8 the world's longest aircraft at the time.

But the era of large four-engine aircraft was already over. The passenger version of the latest 747-8 was a tough sell. Airbus also ended production of the A380 wide-body plane – just 16 years after its first flight.

And yet, Boeing's company historian Michael Lombardi is convinced that "Even at its 100th birthday in 2069 there will still be Boeing 747s flying. The 'Queen of the Skies' will cruise the air for many decades to come."

-B