

By Hillary Hauser

This is a particularly significant month in the annals of air travel. This very first month of a very new decade is the 20th birthday of the Boeing 747's first commercial flight. On Jan. 21, 1970, the Pan Am Clipper "Young America" left New York for London. It was a 747 carrying enthusiastic passengers who were among the first to say the jumbo jet was a revolutionary concept in flying.

In a way, the premiering of new planes ever since the Wright

Still flying after all these years

Brothers launched their invention in 1903 has been among the most exciting leaps for mankind. Air travel has made the world accessible to many of us. Before the airplane, we might have only been able to dream of zebras, hippos and rhinos in Kenya. Now we can go see them — in less than a day.

After the Wright brothers proved that man could fly, airplane development went along two lines — civil and military. Until World War I, however, civil aviation was mainly a smattering

of air races, displays and joy riding.

In 1910 the Daily Mail of London offered \$10,000 for the winner of an air race between London and Manchester. In 1911, American newspaper tycoon William Randolph Hearst offered \$50,000 for a flight across the U.S. These contests encouraged the development and improvement of airplane design.

With World War I in 1914, aviation went almost entirely military. The thrust of many countries was to build an air machine that could compete with the infamous Zeppelin, the German airship that looked like an enormous floating torpedo.

When the war ended in 1919, the governments of various European countries helped their budding airlines switch from mil-

itary to civil operations by handing out subsidies. In the U.S. subsidies were an affront to the free-enterprise system, so there was no government help to be had. By summer 1919 there were only two short passenger services in the country — one between the California mainland and Catalina Island, and the other between New York and Atlantic City. By 1920 an air service had been established between Key West and Cuba, called Aeromarine West Indies. That was about it for America.

Meanwhile, the Germans were flying between Berlin, Leipzig and Weimar with their Deutsche Luftreederei, early forerunner of Deutsche Lufthansa (credited as being the world's first passenger

airline). There was also the Royal Dutch Airlines (KLM), established in October 1919, and Queensland and Northern Territories Air Service (QANTAS), which formed in November 1920.

Worldwide interest in aviation took off like an orchid in a hothouse. Pilots undertook marathon flights, entered contests, tried new stunts. The globe was finally circumnavigated in 1924, when a team of U.S. fliers went from Seattle to Japan to India to Europe to Iceland to Greenland to Seattle.

But there was still the problem of practicality — for the passenger flying was just plain uncomfortable. Passengers had to sit in open cockpits, and were given fly-

ing helmets and heavy overcoats to wear. There was not a long line of passengers fighting to buy tickets to fly.

So, most of the flying done in America was concentrated on the transportation of mail. In 1926, the U.S. Post Office Department put out bids for mail contracts, and during the scramble for mail runs, Boeing got its start.

William Boeing, heir to a lumber and mining fortune, had taken up flying — a floatplane that could get him to remote places in the Pacific Northwest where he could hunt and fish. He cracked up his floatplane one day and dis-



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covered a problem: he couldn't get a replacement for months.

He decided to build his own plane in a red barn on the outskirts of Seattle. The plane turned out very well, and Boeing was on his way into a new business. When the Post Office Department awarded a contract for the mail run between Chicago and San Francisco, Boeing established a factory with his old sidekick Eddie Hubbard as test pilot and Clair Egvedt as ace engineer, and bid on the route.

They got the contract, and the Boeing 40-A was built — a single-engined biplane with open cockpit and small cabin for two passengers, designed to climb easily over mountains.

Two years later, Boeing joined forces with Pratt and Whitney, and acquired two airplane factories, Sikorsky and Chance Vought. This conglomerate became Boeing Air Transport, which eventually became United Airlines.

In 1930, when the emphasis of flying shifted from mail to passengers, Boeing Air Transport was the first airline to hire stewardesses. On a three-month trial basis, eight nurses worked the Chicago-San Francisco mail run. The pilots objected. They said they had enough to worry about without frail women on their hands. But the nurses were a hit with the passengers. They were very spiffy in their uniforms of green twill jackets, skirts and Batman capes, topped by green tam hats that resembled shower caps.

At about this time, Ford Tri-Motors built a plane, the Tin Goose, that TWA was using. An airplane builder named Donald Douglas got into the airplane game. When TWA asked Douglas to build a 12-passenger airplane better than the Tin Goose, Douglas sent his number-one designer for a research ride in that plane. Here is what the designer reported:

"They gave us cotton wool to stuff our ears, the Tin Goose was so noisy. The thing vibrated so much it shook the eyeglasses right off your nose. In order to talk with the guy across the aisle, you had to shout at the top of your lungs.

"The higher we went, to get over the mountains, the colder it got inside the cabin. My feet nearly froze. The leather-upholstered, wicker-back chairs were about as comfortable as lawn furniture.

"When the plane landed on a puddle-splotted runway, a spray of mud, sucked in by the cabin air vents splattered everybody."

That passenger, engineer Arthur Raymond, then designed the DC-1, which made its debut in 1933. It revolutionized air travel. It was the first airplane to emphasize soundproofing, cabin temperature control, improved plumbing. Comfort without the mudbaths.

Only one DC-1 was produced, the factory model. From this evolved the DC-2, a plane that was entered by KLM in the 11,123-mile race from England to Australia. While other entrants in the race arrived in Melbourne looking — and feeling — as if they'd been to war, the KLM people arrived rested and feeling fine.

From there, Douglas launched his DC-3, which is known as the best-loved airplane ever built. The DC-3 was the plane that *really* sold air travel, and by 1940 it was carrying 95 percent of all air passenger traffic. There was a sleeper plane version, called the Douglas Sleeper Transport (DST), which had berths for 16 people. For night flights between coasts there were as many as 25 tiny Pullman type berths, where passengers could sleep as they crossed the continent.

Then came the flying boats — planes that could land on water, called Clippers.

The Clippers were born with the Sikorsky S-40, which made its inaugural flight in 1931 to Washington, where Mrs. Herbert Hoover christened it "American Clipper," and broke a bottle of Caribbean sea water over its bow. Charles

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ARTHUR RAYMOND
AIRPLANE DESIGNER

Lindbergh, who worked with Sikorsky in the design of the S-40, piloted the Clipper on its maiden flight across the Caribbean from Miami to Baranquilla, Colombia. Pan American then began to cross the Caribbean regularly with the Sikorsky plane.

Boeing got into flying boats with the 314 Clipper, which became known as the king of the clippers. It was 106 feet long and flew at 199 mph. It had two decks, the lower one of which had 10 sleeping compartments, a dining salon, a recreation room and a bridal suite. The first Boeing 314, "Yankee Clipper," made the first scheduled flight across the Atlantic Ocean in February 1939.

When World War II broke out, civilian passenger flying came to a halt. Many of the planes were converted to military use, with the DC-3 being the most popular plane. In the Air Force it became known as the "gooney bird," in the Navy and Marines it was called the R4D, and to the British it was known as the Dakota.

The economy consciousness that developed as a result of the war affected the airline industry long after the war was over. The trend was to pack the passengers in, side

by side, while the individual compartments, carpeted lounges and dining areas went out the window. This is a trend that has steadily continued, and which has evolved the concept of class seating. First class, business class, tourist class.

Planes also began to fly higher and higher — in order to get clear of congested airways, to overfly bad weather, and most importantly, because of jet propulsion. Jet engines, which were predicted as early as the late 1920s, were necessary at higher altitudes because propellers and pistons are not good in the thin air of the upper atmosphere.

With this, the passenger cabins of airplanes had to be pressurized. Just before the war Boeing had managed to produce the world's first pressurized airliner — the Boeing 307 Stratoliner. This airplane was dubbed by Pan Am as the "Flying Cloud." After the war, Boeing produced the Stratocruiser, a civil variation of the B-29 bomber. The main cabin was connected to an upper deck by a circular staircase — a hint of the luxurious 747 that was to come.

When the 747 was rolled out for its first test flight in February 1969, some onlookers gasped in disbelief. They called it a flying Mac truck. It seemed to them an enormous flying city, with its wing span of 212 feet, a tail six stories

high, and a cockpit 32 feet off the ground. Skeptics said the plane itself wouldn't get off the ground.

Nay-sayers also said Boeing would go under, with the \$1 billion it had put into the building of the plane — a situation that caused a widespread depression in Seattle during the early 1970s.

But during its first test flight in February 1969, the 747 not only got off the ground, it flew like an absolute dream. Pilots loved it, and they still do. They say it handles like a sportscar.

And when that first transatlantic passenger flight took place on January 21, 1970, the people aboard that flight added their enthusiasm to the list of praise: the plane was roomy, it was quiet, it was solid, it was comfortable.

The 747 also shrank the world — immediately — with its mammoth range — 4,600 miles for that first flight in 1970, now over 8,000 miles. Today you can fly almost anywhere in the world non-stop — not only on the 747, but on a lot of other wide-bodied planes that have followed Boeing's suit.

Where our parents and grandparents could only view zebras, hippos and rhinos in a book about Kenya, we can actually go to Kenya and see them for real. Since the world is now accessible to more and more of us, this inaugural flight of the 747 is a birthday worth celebrating.

Santa Barbara freelance writer Hillary Hauser flew to Seattle on a 727 to research this article.