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DOUGLAS DC-3

Background Information

Without doubt the best known aircraft in the world today is still the venerable Douglas DC-3.

Not that the ship is recognized by that name everywhere. In England the DC-3 has been called the Dakota, or Dak. During World War II American pilots referred to her as the Skytrain, the Skytrooper, the Doug, the Gooney Bird and numerous other nicknames.

The U.S. military officially labeled her the C-47, C-53 and R4D. But regardless of the name, the performance has been the same--uniformly honest and dependable, usually above and beyond the call of duty.

The first DC-3 flew in December 1935 as an evolutionary product of the DC-1 and DC-2. It was two-motored, had a gross weight of 24,000 pounds and carried 21 passengers. Before production ceased on this plane and its variations, 803 had been built as commercial airplanes and 10,123 as military versions.

No one knows how many are still flying, but it is probable the figure runs into thousands commercially, and additional hundreds are in private service for corporations and individuals.

The DC-3s were constructed at plants of the Douglas Aircraft Company in Santa Monica, Calif., Long Beach, Calif., and Oklahoma City, Okla.

Donald W. Douglas, founder of the company which bore his name, headed a small group of engineers, including James H. "Dutch" Kindelberger and Arthur E. Raymond, in developing the DC-3.

Originally the DC-3 was conceived as a luxury sleeper airliner for American Airlines when it was found the DC-2 wasn't wide enough to accommodate a comfortable berth. Initially designed for seven upper and seven lower berths, with a private cabin in front, the engineers soon found out that by removing the berths they could fit three rows of seven seats each into the fuselage. Thus the "sleeper" ship evolved into the famous DC-3.

It was an immediate success when American's ships went into service in June 1936 on the non-stop New York-to-Chicago run. Orders from other airlines and from around the world poured into the Douglas company for more and more DC-3s almost at once.

The airline industry converted to DC-3s as fast as Douglas could produce the transport. By 1938 the plane not only was the standard equipment of United States major airlines, it was also operating in dozens of foreign countries.

Popularity of the DC-3 with airlines and passengers was based on many factors. It was larger, faster and more luxurious than previous planes; it was more economical to

operate and standardization of the DC-3 reduced maintenance and hiked safety records.

It cut coast-to-coast travel to 15 hours with a cruising speed of 165 to 180 miles per hour. C. R. Smith, then president of American Airlines, stated: "The DC-3 freed the airlines from complete dependence upon government mail pay. It was the first airplane that could make money by just hauling passengers."

Stories of the DC-3 durability are legend around the globe. A Capital Airlines DC-3 had five feet clipped from one wing in a mid-air collision but landed safely with a full load of passengers. During World War II a DC-3 had its right wing knocked off in a strafing operation. The plane was fitted with the wing of a DC-2 which was 10 feet shorter and flew splendidly. The airmen christened her the "DC- $2\frac{1}{2}$."

A DC-3 in the Burmese theater of World War II secured the unique distinction of being the only transport plane officially credited with downing an enemy fighter plane. A Jap Zero ploughed into its tail, slicing off all but one foot and a half of the rudder. The Zero crashed, but the DC-3 hobbled back to base and returned to service soon again.

Perhaps no plane has been so historically abused as the DC-3 and yet has come off so well. Allowable gross takeoff weight for civil operations in the United States is 25,200 pounds for the ship. During WWII the Air Transport Command regularly flew the ship at a normal gross of 29,000 pounds and an overload of 31,000 pounds. DC-3s labored off Brazilian runways and across the Atlantic with 35,000 pounds in 1942.

The 21-passenger capacity originally envisaged for the ship has been stretched many times. During the evacuation of Burma in WWII, a DC-3 carried a total of 74 passengers, including the then Lt. Col. Jimmy Doolittle, who was returning from his bombing raid over Tokyo.

Another fully documented tale of incredible DC-3 survival took place April 21, 1957, when the doughty ship lost 12 feet of its left wing to a mountain peak during a storm but continued on in almost routine manner and made a safe landing at Phoenix, Arizona.

There were 23 passengers aboard this particular DC-3, which belonged to Frontier Airlines.

Perhaps the best reason the DC-3s are still flying is that no one has yet designed a better airplane for the particular job to be done.

The Douglas Aircraft Company version of a replacement of the old DC-3 in the early 1950s was the Super DC-3. This was a modified DC-3 which was faster and had a new wing and tail. However, not many Supers were sold commercially, even though the U.S. Navy purchased a substantial number.

There are thousands of unofficial tributes to the DC-3 and scores of concrete citations, like that awarded by Secretary of the Air Force Harold E. Talbott, August 21, 1953, in Washington, D.C.

Secretary Talbott said: "The soundness of his (Donald W. Douglas') technical skill is best illustrated by the DC-3 (C-47) which he produced over 20 years ago and which unquestionably ranks as the best single airplane ever built."

Just how long the DC-3 will continue to fly is anybody's guess. If the time ever comes when it disappears from the skies, it will be missed by millions of friends it has made around the world.

SPECIFICATIONS

Dimensions:

span:

length overall: height overall: 95 feet 64 feet 5 1/2 inches 16 feet 11 1/8 inches

Weight:

25,200 pounds

Power plants:

two P&W R-1830-92

(1200 horsepower each)

Performance:

230 m.p.h. (maximum)

185 m.p.h. (cruising)

Passengers:

21-28 (maximum)

Range:

1510 statute miles

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