



Saluting a legend

In this centenary year of manned flight, it is apt to salute another legend of aviation - DC-3 Dakota.

Technically, Dakota is a marvel of its period. Typical of many great aircraft, its birth was quite unique. Boeing had come up with B-247, an all-metal transport airplane. DC-3 was designed and patented by chief engineer James H Kindleberger (Dutch) and designer Arthur E. Raymond to compete with Boeing B-247. It was initially conceived as Douglas sleeper transport (DST) with fourteen sleeper berths to fly passengers from US coast to coast. But the moment berths were replaced by seats it proved to be a vehicle capable of producing profit without the government subsidy in the form of air mail charges.

The DC-3 made its first flight on 17 December 1935, the 32nd anniversary of the Wright brothers' first flight. The 21 seat DC-3 came on the scene in 1936. American Airlines were the first to use it and on 25 June 1936 — the first established profit-making route (New York to Chicago) was born. The DC-3 incorporated all the technological advances of the mid-1930's; reliable, high-power air-cooled piston engines; cowl

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flaps to control the cooling airflow through its engines; variable pitch metal propellers; duraluminum alloy fuselage and wings; a

strong retractable landing gear to allow landing on rough landing strips; flaps to allow it to land on short runways, and an electronic autopilot.

With a fuselage length of 64 ½ ft and a wing span of 95ft it was big and beautiful. With 1,200 horsepower from each Pratt & Whitney engine, it cruised at a remarkable 145 knots at altitudes of up to 10,000 ft. It could carry its 21 passengers in an unpressurized cabin, over a nonstop distance of 700 miles at half the cost of its predecessors. With the gross weight off 24,000 lbs, a ceiling of 20,800 ft, and a range of 2,125 miles with maximum fuel, it soon became popular.

Five years after its appearance, DC-3 carried over 80 per cent of U.S. domestic airline passengers, due in part to its strong safety record. Between 1935 and 1947 Douglas built a total of 10,654 Dakotas and 68 years later there are still around 1,000 in flying condition. What's more, some of these are still workhorses for airlines and the military — in various roles that one would still find it hard to believe.

Dakota DC-3 refuses to grow old. She still has no true replacement and is the most immortal airplane of all time. So long as the air frames remain strong (DC-3 has never had structural failure to this day) there is no reason why this bird cannot continue to fly forever.

M S Rajamurthy