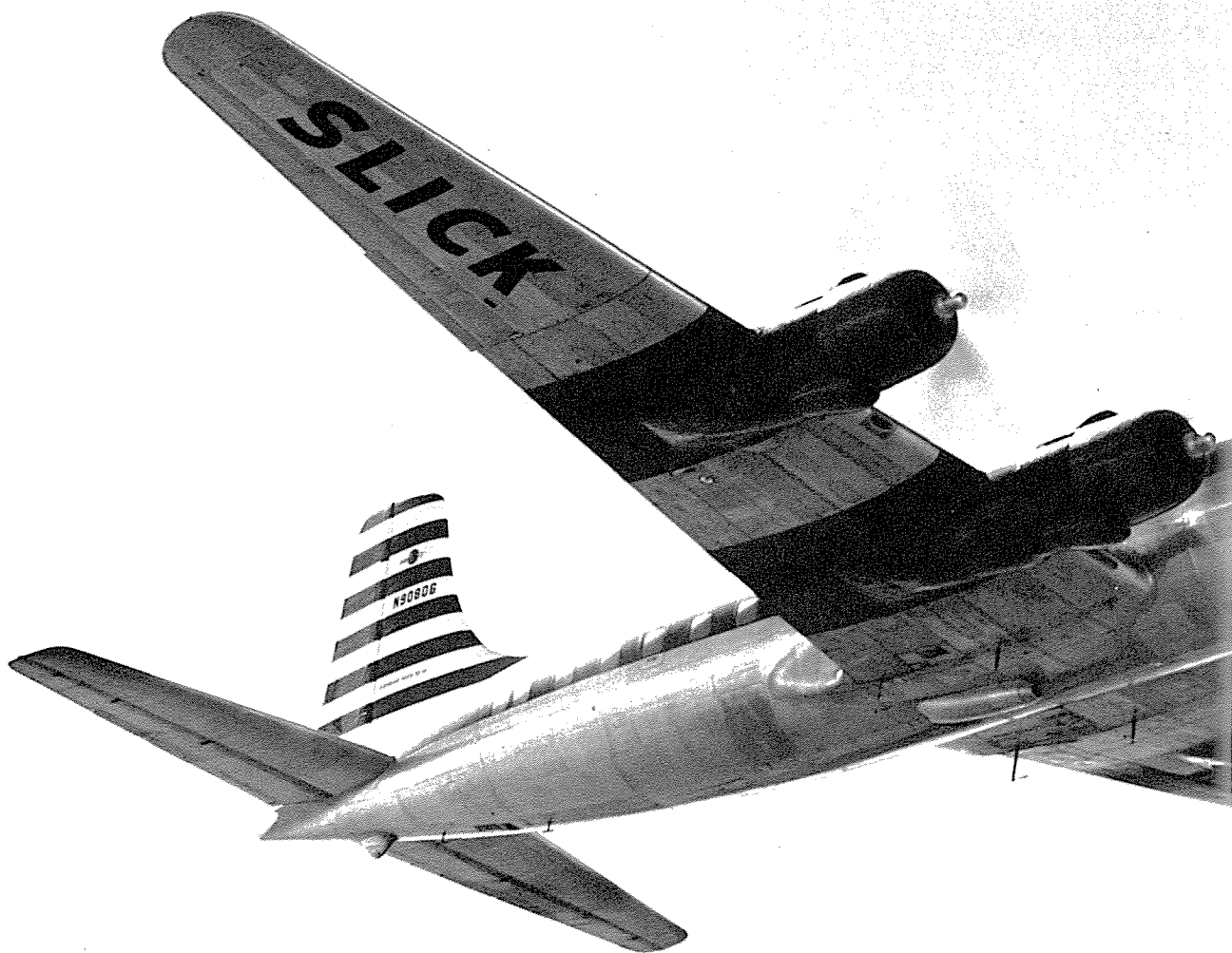
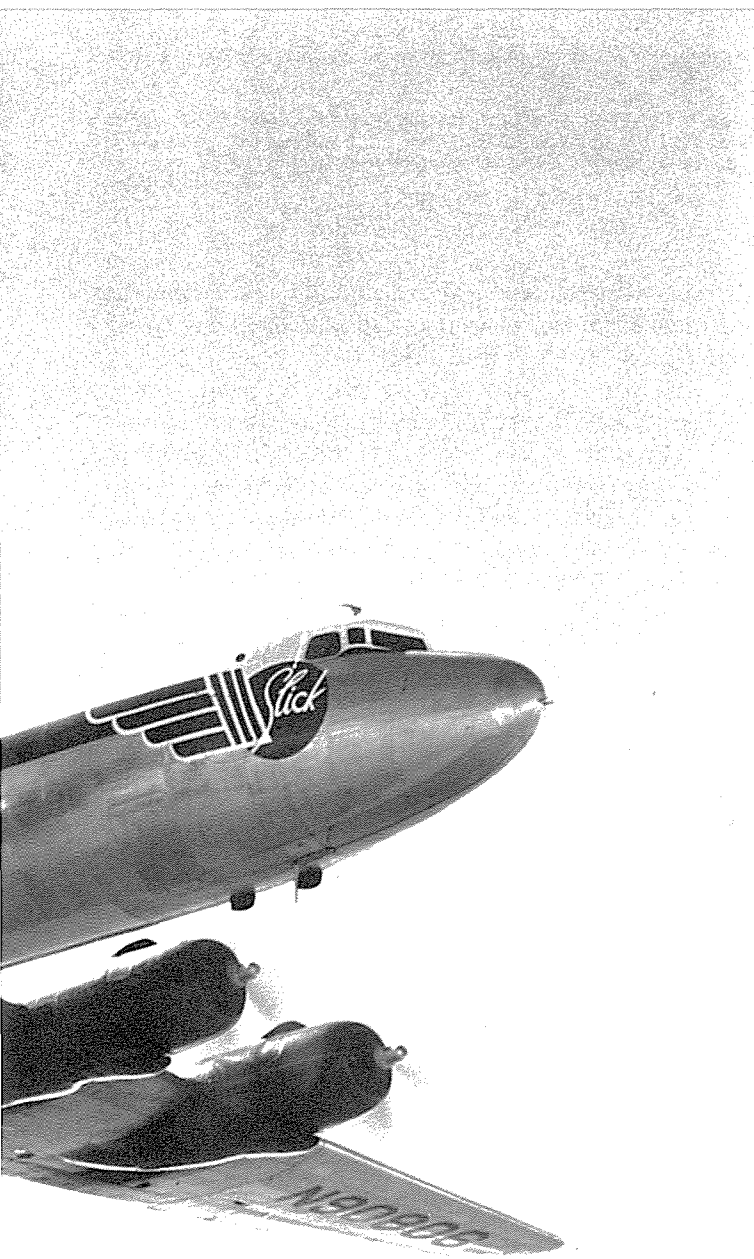


The DC-6A *Liftmaster* prototype (N30006, c/n 42901), cargo version of the DC-6, first flew on September 29, 1949. It was used extensively by Douglas as a demonstrator for nearly two years after which it was sold to Slick Airways of San Francisco. Slick, who was instrumental in bringing the *Liftmaster* to fruition, became the first DC-6A operator.





THE DOUGLAS DC-6 SERIES

Part II — The DC-6A Liftmaster, DC-6B and DC-6C

by Bob Williams

All photos courtesy McDonnell Douglas unless otherwise noted.

WITH THE AVAILABILITY OF MORE POWERFUL ENGINES in 1948 Douglas planned a stretched version of the DC-6 for increased cabin volume, payload and operating weights. The first was the DC-6A all-cargo version, powered by 2,400-horsepower *Double Wasp* CB16 radial engines. The fuselage was lengthened five feet to 105 feet, seven inches and the cabin was given a durable cargo interior, but cabin pressurization was retained. Cabin floors were reinforced, and two upward-swinging cargo doors were added to the left side of the fuselage fore and aft of the wing. Onloading and offloading could be accomplished simultaneously with this arrangement for quicker turnaround at air terminals.

The electrical system and general maintainability were improved, and fuel capacity was increased from 4,260 to 5,525 U.S. gallons. Cargo capacity was 28,950 pounds, and cargo containers were 75 percent larger than maximum for the C-54. Called the *Liftmaster*, the DC-6A was the first commercial transport designed specifically as a cargo carrier.

DC-6A—The DC-6A prototype (N30006, c/n 42901) first flew on November 9, 1949. A company-funded project, it was retained by Douglas until March 7, 1951, when it was delivered to Slick Airways of San Francisco which began oper-





ating it the following month, thus becoming the first DC-6A operator.

On January 5, 1952, Pan American initiated its DC-6A all-cargo flights over the North Atlantic followed by several European operators, including KLM, Sabena and Swissair. Other operators, both scheduled and non-scheduled, flew DC-6As on U.S. domestic and transpacific routes. Later, as the DC-6As were supplemented by converted DC-6Bs, *Liftmasters* were operated throughout the world, and many are still in service.

One DC-6A (N7780B, c/n 45372) had a most unusual service life. After tentatively being sold to Olympic Airways, Riddle Airlines and Los Angeles Air Services Inc., but not delivered to any of them, it was bought by Howard Hughes. He personally supervised it being towed from the Douglas flight ramp, across the field to the Santa Monica airport where it remained parked outside for years without being flown. Total flight time on the aircraft was nine hours and 50 minutes.

Then, after 15 years of neglect, it was rolled inside a hangar rented by Hughes where it was guarded around the clock in typical Hughes fashion, like the *Spruce Goose*. Spokesmen for Hughes refused to comment on his plans for the decrepit *Liftmaster*, then totally un-airworthy. But soon Hughes trucks and workmen swarmed in in a beehive of activity. Nearly a year later the Hughes DC-6A was rolled out with

The DC-6A prototype featured a self-contained 4000-pound-capacity elevator which easily handled the 2175-pound Jeep and driver.

DC-6A (N6118C, c/n 45243) of Alaska Airlines had a short service life, crashing and burning on a GCA approach to Shemya Island, Alaska, less than three years after delivery March 1958.

Overseas National Airways DC-6A "Fern M" delivered February 22, 1958, was operated more than 20 years by 10 owners.

Western Airlines DC-6B (N9117, c/n 45060), new in October 1956, went to Japan Air Lines in February 1962. After seven years of service for JAL it had a series of owners, the last being Iscargo, Iceland in 1972. (Western Airlines)

gleaming new paint and polished aluminum. The rebuilding was rumored to cost more than the \$125,000 price tag of a flyable used DC-6A at that time.

It was then announced that the plane was being given to the Partners of America, a nonprofit organization which flew mercy and relief missions to Latin America. (However, records do not verify this happening.) Hughes had been in Managua, Nicaragua, in December 1972 when an earthquake leveled much of the city, killing nearly 10,000 people, and it must have impressed him deeply.

Howard Hughes had bought the DC-6A for \$1.2 million, let it deteriorate to less than \$125,000 in worth, spent more than that to restore it—then gave it away without ever flying it—a most unusual history!

Seventy-four DC-6As were built between 1949 and 1959. The last DC-6A was delivered to Brazilian carrier Liode Aerea Nacional on February 19, 1959.

DC-6B—The DC-6B was a passenger version of the DC-6A, dimensionally the same but minus the reinforced floor and the cargo doors. Passenger accommodations varied from 54, to 102 in the high-density layout. DC-6Bs were powered by 2,400-horsepower *Double Wasp* CB16 or 2,500-horsepower CB17 engines.

Though the DC-6B did not fly until 16 months after the DC-6A, they both entered service the same month. The first DC-6B (N37547, c/n 43257) was delivered to United Air Lines on March 27, 1951, christened "Mainliner Newark." The following month American Airlines began operating the DC-6B on their transcontinental route. Soon all U.S. Trunk carriers, with the exception of TWA, were flying DC-6B airliners. U.S. Flag carriers operating DC-6Bs included Panagra and Braniff with service to South America, Northeast, Northwest, Western, and Pan American which used DC-6Bs to inaugurate tourist-class service over the North Atlantic. The lower seat-mile costs of the DC-6B made it ideal for this, and made it popular with the world's major airlines.

Swissair became the first foreign DC-6B operator in January 1951, followed by Alitalia, Ansett-ANA, Canadian Pacific, CAT of Formosa, CMA, JAL, KLM, LAI, Olympic, Sabena, SAS, TAI and Uat.

MANY AIRLINES WHICH FAILED TO BUY DC-6S RUSHED to buy DC-6Bs, and DC-6B sales were impressive. On May 3, 1951, twelve DC-6B aircraft were sold in one day—six to Sabena and three each to CMA and TIA,



bringing the total DC-6B sales to 103 sold to 21 airlines. And DC-6B sales were just getting off the ground.

Canadian Pacific started Polar flights linking Vancouver and other western cities with Amsterdam on June 3, 1955. The inaugural flight, in an 88-passenger DC-6B commanded by Captain Ralph Leslie, took about 18 hours with a refueling stop at Sondrestrom, Greenland. The return flight the next day took a little longer.

SAS flew DC-6Bs on Polar flights linking Scandinavia with Los Angeles and Tokyo. And Japan Air Lines introduced DC-6B airliners on its Tokyo-San Francisco route in February 1954, beginning its phenomenal growth into one of the world's major airlines.

In March 1957 the DC-6 fleet had completed a decade of

service, and had logged an incredible 87.5 billion passenger-miles. That was equivalent to flying every man, woman and child in 1957 California to Hawaii and back. The fleet was averaging eight hours daily utilization, and several airlines were averaging 11 hours.

The DC-6B was the most successful piston-engine airliner ever produced. Compared to the standard DC-6 the DC-6B, with a 4 percent increase in operating cost, gave a 7 percent increase in payload capacity and a 14 percent increase in passenger accommodation.

The 288th DC-6B, and the last of the DC-6 series produced, was delivered to Jugoslovenski Aerotransport (JAT) on November 17, 1958. It served with JAT and the Yugoslav Air Force for 13 years, being retired in 1971.



DC-6C—The DC-6C, a convertible passenger/cargo version of the DC-6A, was produced by Douglas and included in the number of DC-6As delivered. Dimensionally the same as the DC-6A, it featured two large cargo doors and reinforced floor like the all-cargo model, plus cabin windows. The rear cargo door was a two-piece combination door like the DC-6A prototype, with the large door hinging upward and the smaller passenger door opening to the front. Developed for the airlines with widely fluctuating passenger and cargo traffic, it could be rapidly converted to all-cargo, all-passenger, or any combination of the two. In a matter of minutes the DC-6C could be changed from a configuration carrying 76 passengers and their luggage plus 2,400 pounds of cargo, to an interior carrying 13 tons of cargo. Though very few convertible DC-6Cs were manufactured, conversions for second and third owners increased the number dramatically. Adaptability for changing market requirements was essential to the survival and growth of the smaller operators, and DC-6 conversions added many more years to its useful service life.

IN LITTLE MORE THAN A GENERATION commercial air transport progressed from rickety fabric-covered wood biplanes to globe-girdling giant metal airliners which were fast and dependable, safe and comfortable. In air travel progress was both rapid and constant.

In the late 1950s the Boeing 707 and Douglas DC-8 jet transports were introduced into service, rapidly replacing the DC-6 as a first-line transport, and relegating it to lesser routes. Also, the large number of short- to medium-range jetliners finally forced the retirement of the DC-6B from the fleets of major airlines.

The changeover to jets was rapid due to competitive peer-pressure among members of the world airline community. And costly. The only airline reporting a profit in 1961 on the lucrative North Atlantic route was Loftleider with its DC-6Bs.



“Keeping up with the Joneses” was damned expensive.

The coming of the jetliners did not mean the end for the DC-6B though. Far from it. The low initial cost of used DC-6Bs with their low operating costs and their reputation for high reliability ensured them a new future. Passed down to smaller airlines and operated as is, or modified as freighters or passenger/cargo convertible aircraft, they continued to fly and make money for their new owners. And over the years there were many changes of ownership, including airlines of third-world nations and many of the world’s air forces.

DC-6 Modifications—A number of used DC-6B aircraft were modified as aerial tankers for use against forest fires. In a typical modification, a large tank was mounted under the



Pan American Airways' DC-6B "Clipper United States" (N6538C, c/n 43838) was photographed at San Francisco International Airport Feb. 8, 1958. (Photo by Robert G. Hufford)

Olympic Airways of Greece took delivery of DC-6B (SX-DAE, c/n 45540) August 8, 1958, one of the last DC-6s built.

An early DC-6B, N90960, was delivered to Continental in May 1953. After eight owners it was last purchased by Frederick B. Ayer & Associates in November 1968.

A LAN-Chile DC-6B was seen here over the Long Beach Harbor prior to delivery on August 12, 1958.

SAS DC-6B "Torbil Viking" was purchased in May 1952, giving 26,532 hours service before being sold to Thai International in 1961.



fuselage holding 2,500 to 3,000 gallons of fire-retardant chemicals capable of covering an area 90 feet wide by 2,750 feet long. These tankers operated mostly in the western U.S. and Canada in the summer and early fall, and in Peru and Chile during the rest of the year as the seasonal fire hazard shifted to the southern hemisphere.

Conair Aviation, an experienced Canadian fire-bombing company based at Abbotsford near Vancouver, operated a fleet of 30 such aircraft, 10 of which were modified DC-6Bs. During their long careers since leaving the Douglas factory, Conair's DC-6Bs have had many previous owners and interesting incidents. One is an ex-Ansett-ANA airliner, VH-INA, which made headlines in April 1964 when it suffered a runaway propeller over Melbourne on a scheduled passenger flight. The number-three engine tore loose from its mountings, and Captain Keith Hants flew his disabled aircraft out



Air Liban DC-6C in flight off the coast of Malibu prior to delivery in October 1957, was still in service 21 years later with Texas Turbo Jet Inc. of Dallas.

Hunting-Clan Air Transport, one of five major British independent airlines, operated two DC-6A(C) transports on routes to Africa.

An Aviateca Guatemala DC-6B (TG-ADA, c/n 43531) seen at Miami, Florida, July 24, 1965. Services of the government-owned airline were confined to Guatemala until the mid-1950s. (Photo by Robert G. Hufford)



over Port Phillip Bay where he shook the partially detached engine off with violent maneuvers. When he landed back at Essendon Airport, Hants was the hero of the day. And the DC-6B was repaired and back in service four days later. This veteran airliner is now Conair's "Tanker 143."

Among the many "Six" conversions is a former Pan American World Airways DC-6B which, with a plush customized interior, was sold to the South Vietnamese government for use as their air force's No. 1 transport. Air Carrier Service Corp. of Washington, D.C., purchased the aircraft from Pan Am and had it refurbished at Oakland, California. The customized interior contained couches, a bar, radio and television sets and desks just aft of the flight deck. Also installed were a galley, lounge and airline-type seating area. The aircraft seated 46 plus a crew of four. Total price for the sale was less than a half-million dollars. It left on its ferry flight to Saigon on July 2, 1966.

The secondary roles of DC-6s after passing out of service with the major airlines were often interesting and varied. Two DC-6As (c/n 45227 and 45368) were fitted with special radar and instrumentation for hurricane research, and operated by the Weather Bureau of the U.S. Department of Commerce. Also in 1960, two other DC-6As were modified as airborne TV transmission and relay stations for broadcasting educational programs to sparsely populated areas of the U.S. Midwest.

A number of DC-6B airliners were modified by Pacific Airmotive Corp. as freighters by installing C-54 type cargo doors and reinforced floors. These modified aircraft became known as DC-6AB, DC-6AC, DC-6A(C) or DC-6BF depend-

ing on the aircraft and the modification.

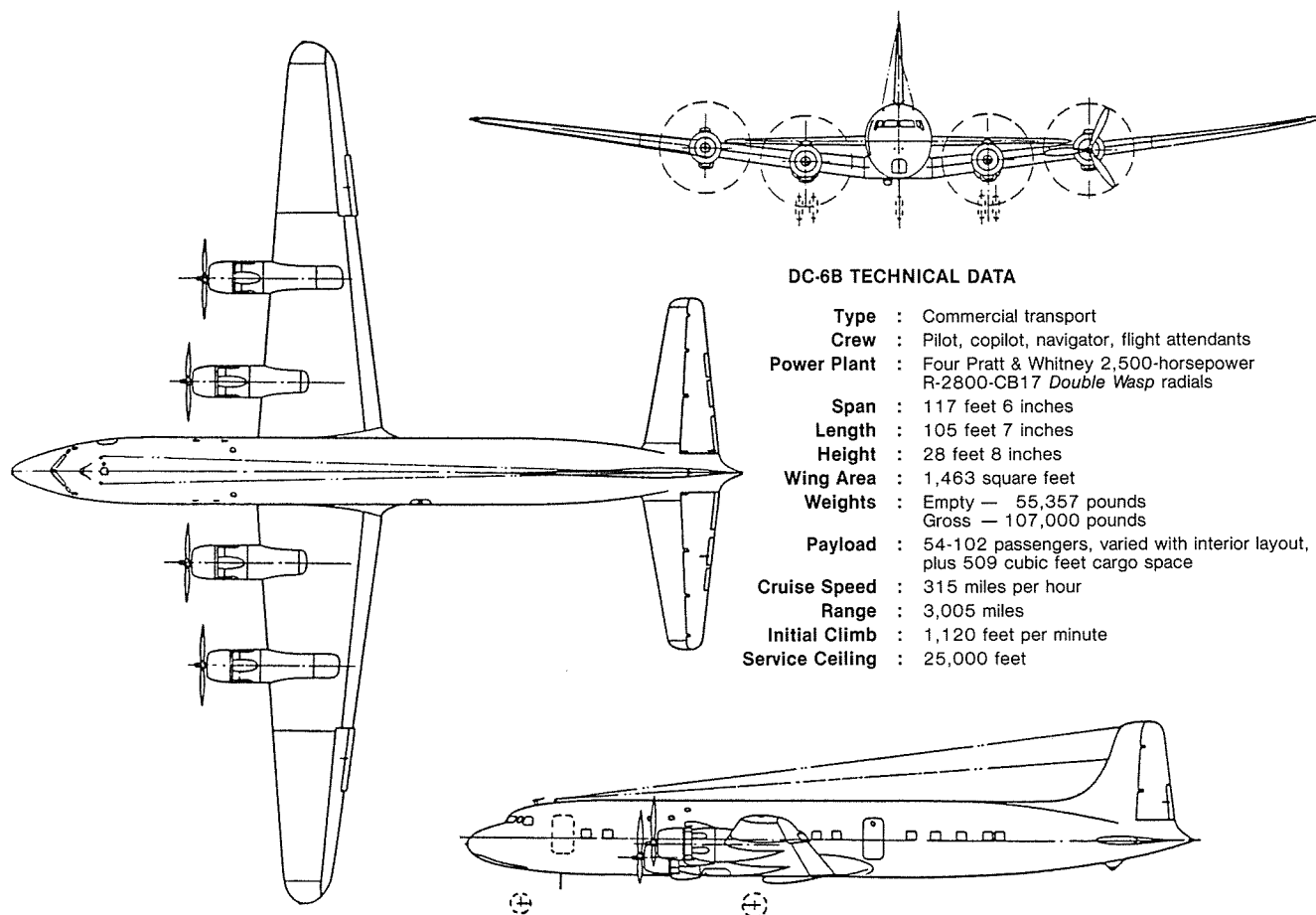
Several studies were made for possible modification to swing-nose DC-6s similar to the DC-4 *Carvair* modification. The big problem lay in maintaining cabin pressurization with a hinged nose section. It was finally resolved by Sabena engineering department in Brussels to hinge the tail section. Two DC-6Bs were modified as swing-tail freighters by Sabena in 1968. One, registered OH-KDA (c/n 45202) and operated by Kar-Aor in Finland, was purchased from Northwest Airlines which operated it as N577 since new in 1957. The other swing-tail went to Spantax of Spain as EC-BBK (c/n 44434).

The DC-6 convertible-freighter modification had the most profit potential for small operators just starting up. International Freight Airways (IFA) was formed in early 1977 to operate passenger and freight charters with an immaculate 25-year-old DC-6B. The convertible aircraft with a cargo door and 86 first-class seats made its first revenue flight on June 16 carrying 86 passengers from Brussels to Jersey. The operation was so successful they soon put on a second DC-6 with a circular lounge in the rear. Their DC-6s were very popular with the flying public and reservations for the charter flights had to be made weeks in advance. About flying IFA DC-6s, passengers commented: "The DC-6 is still a grand aircraft to fly in . . . it has appeal and is more personal to fly than your common jets."

New, the DC-6 was a bargain for the airline customers. The first hundred or so DC-6s sold for \$590,000, a losing price. The average selling price was \$690,000; and the DC-6B sold for \$1,120,000. Later DC-6 deliveries were at a more realistic price of \$950,000. The immediate postwar economic and competitive climate forced extremely low pricing.

THIRTY YEARS AFTER THE FIRST FLIGHT OF THE XC-112A prototype, nearly a third of all DC-6 aircraft built between 1946 and 1958 were still in service. Approximately 130 aircraft, primarily in cargo or tanker configurations, were operated by air forces, government agencies, tanker contractors or other operators. By comparison, the DC-6's arch-rival, the *Constellation*, had by then become almost extinct. Only four remained in commercial service. Considering that many types of piston-engine transports became obsolete after the coming of the jetliners this achievement is a strong testimony to the excellence of the Douglas DC-6 series. □

Part III concludes the DC-6 story with the military versions



DC-6B TECHNICAL DATA

Type	: Commercial transport
Crew	: Pilot, copilot, navigator, flight attendants
Power Plant	: Four Pratt & Whitney 2,500-horsepower R-2800-CB17 <i>Double Wasp</i> radials
Span	: 117 feet 6 inches
Length	: 105 feet 7 inches
Height	: 28 feet 8 inches
Wing Area	: 1,463 square feet
Weights	: Empty — 55,357 pounds Gross — 107,000 pounds
Payload	: 54-102 passengers, varied with interior layout, plus 509 cubic feet cargo space
Cruise Speed	: 315 miles per hour
Range	: 3,005 miles
Initial Climb	: 1,120 feet per minute
Service Ceiling	: 25,000 feet