



The original Curtiss Condor, the B-2 Army bomber that carried on WWI design concepts, featured a gunner's cockpit in the rear of each engine nacelle. This one is demonstrating an automatic pilot, so the pilot is standing on his seat and the copilot is laying on top of the fuselage behind the cockpit.

Clarence Chamberlin and the Curtiss Condor

Yesterday's Wings

by PETER M. BOWERS / AOPA 54408

■ ■ When the airline business got under way in Europe in 1919, the first transport planes were converted war surplus bombers. As the business grew, bona fide transports were designed from scratch and a new class of airplane was established.

By 1928, the United States had a significant airline network in operation that used, for the most part, modern transports that had been designed as such. The principal ones were the 10- to 14-passenger Fokker and Ford trimotor monoplanes and the 18-passenger Boeing 80A biplane.

The Curtiss Aeroplane & Motor Co. of

Buffalo and Garden City, N.Y., was then the major U.S. aircraft builder, but most of its business was military. In 1928, it got into the civil field in a big way with the new Robin cabin monoplane and the Fledgling biplane trainer. It also looked toward the growing transport market and saw a quick way of getting into it.

Early in 1927, Curtiss had flown the XB-2, the prototype Condor heavy bomber for the U.S. Army. This was a traditional open-cockpit, twin-engine biplane design, as originated in World War I, but it had a few latter-day refinements, like riveted aluminum tubing for the fuselage structure. Instead of the traditional wooden wing spars, the Condor used welded steel tube trusses. The engines were 600-hp Curtiss Conquerors, water-cooled V-12s with reduction gearing.

The most distinctive feature of the 1927 bomber was the addition of a machine gunner's cockpit in the rear of each engine nacelle. The XB-2 was followed by 12 production models that comprised the Army's entire heavy bomber fleet into the early 1930s.

Late in 1928, Curtiss got Army release of the B-2 design for domestic and export sales and resorted to the 1919 procedure for converting an established bomber to a transport, which was easy to do. The fuselage was lengthened slightly and adapted to a cabin with seating for 18 passengers plus a steward. A lavatory and buffet were grouped together on the right-hand side of the center compartment.

The pilots were located in the extreme nose, where they had visibility superior to any contemporary American transport

CURTISS-WRIGHT CONDOR 18

Specifications

Powerplant	Curtiss GV-1570 Conqueror, 600 hp @ 2,400 rpm
Span	91 ft 8 in
Length	57 ft 6 in
Height	16 ft 3 in
Wing area	1,510 sq ft
Empty weight	11,352 lb
Gross weight	17,378 lb

Performance

High speed	139 mph
Cruise speed	118 mph
Stall	57 mph
Initial climb	925 fpm
Service ceiling	17,000 ft
Range	515 sm (446 gal)



The first three Condor transports used the bomber wings, tail, and nacelles, but stretched the fuselage to accommodate a cabin for 18 passengers, two pilots, and a steward.



The last three civil Condors had larger vertical tail surfaces, dihedral on both wings, and redesigned engine nacelles. This is NC727K, the first of four Condors acquired by barnstorming pilot Clarence Chamberlin.

CURTISS CONDOR continued

and were separated from the passenger cabin by a radio compartment. The wings and tail were identical to those of the B-2 and the engine nacelles were modified only to the extent of covering the gunner's cockpits. The engines were still the Conquerors, Curtiss having obtained type certification of the military engine for commercial use.

The new quickie transport was named Condor after the bomber. It was sometimes identified as Condor CO, for commercial, or Condor 18, to reflect its 18-passenger capacity. A batch of six was optimistically started at the Garden City plant early in 1929. The first civil Condor flew in June 1929, and received Approved Type Certificate A-193 in August.

In spite of the expansionist policies of the time, the airlines were in no rush to buy what was basically a World War I bomber. One line, Transcontinental Air Transport (TAT), did go so far as to evaluate a pair of Condors on its routes, but soon returned them without buying. This rejection was a hard enough blow for Curtiss, now Curtiss-Wright, and was soon followed by another, the worldwide depression that started with the stock market crash of October 1929. This closed down much of the aircraft industry and Curtiss-Wright was barely able to hang on until better times.

The six unsold Condors simply sat in storage for up to two years. Eastern Air Transport, now Eastern Air Lines, bought the last three at giveaway prices in January 1931, and acquired the three earlier examples singly, between October 1931



Normal passenger accommodation was for 18. This view shows the buffet and the lavatory and facing bench in the center cabin compartment. Photo National Air and Space Museum.

and July 1932, after they had been refurbished and updated at the Curtiss-Wright St. Louis plant. Eastern lost one of these at Newark in January 1933.

The airline career of the Condor 18s was short, due to the impact of revolutionary designs like the Boeing 247 and the Douglas DC-2; they were retired by Eastern late in 1934.

The Condors quickly found new owners. One went to a mining company in Nicaragua and the other four went to work in a virtually extinct business—barnstorming. It is generally thought that barnstorming ended in the middle

or late 1920s. The air circus and cow-pasture aspects of it did, but sightseeing flights for paying passengers continued, on a small scale, right up to World War II.

The latter-day barnstorming business was much different from the old. The novelty aspect was gone and the barnstormer didn't have a captive market by virtue of having the only airplane in the county at the time. Established airports now sprinkled the country, airplanes were thoroughly embedded in the public consciousness, thanks to Lindbergh and his followers, and there was always com-

petition for the sightseeing business from the local fixed-base operators.

Instead of operating old, patched-up crates from cow pastures, the new breed of barnstormer used fully certified, multi-engine transports, flew from regular airports, and played up the safety angle in every possible way. About the only edge the transients had on the local FBO was minimum overhead and their ability to carry passengers at lower fares, because of the large capacity of their transport-category airplanes.

One of the leading "new barnstormers" of the mid-1930s was Clarence D. Chamberlin, famous for being the second pilot to fly the Atlantic non-stop. Lindbergh beat him to it by two weeks, but Chamberlin had both the capability and the airplane to have done it five months earlier, if his sponsors had let him. As it was, Lindbergh won all the marbles and the glory and Chamberlin, as number two, soon fell into relative obscurity.

He acquired three of the ex-airline Condor 18s in July and August 1935. The plush furnishings of the 18-place cabin were pulled out and the capacity was increased to 27 for maximum revenue per flight. Chamberlin lost one of his Condors within two months, but was able to obtain the remaining one as a replacement. He lost another in August 1936, which left him with a fleet of two, the only Condor 18s still able to fly.

Thanks to his own fame as a pilot and the characteristics of his airplanes, Chamberlin's operation had an edge on what competition there was. However, selling rides to the public, at the time, was still a hard job. Things were so tough, that desperate price cuts had to be offered in order to fill the airplane. Short hops around the airport, normally \$3 a head, were sometimes sold for as little as one dollar.

One extreme example worked out quite well in the end. The potential passengers at one location were particularly disinterested, even in the dollar bargain, so Chamberlin offered rides for *ten cents* if he could get a full cabin, which he did. It so happened that the field was fairly long—Chamberlin got daylight under the wheels for a short hop and then put the Condor down straight ahead. The passengers hadn't really been taken; they were promised a flight for their dime with no mention of how long the flight would be. They saw the humor of the situation at the turnoff end of the runway and readily agreed to stay aboard and take a real flight for a dollar.

Such was the life of the latter-day barnstormer; Chamberlin retired his two surviving Condors in 1939.

The Condor 18 was the wrong airliner, at the wrong time, and very nearly missed its intended market completely. It does not even have the distinction of being the last biplane airliner in U.S. service, that honor going to an entirely different Condor II that Curtiss-Wright introduced in 1933. If the original Condor has any eligibility for an airliner hall of fame, it would be as the only certificated U.S. airliner to use liquid-cooled engines. □