

The first prototype Curtiss Thrush after completion of its certification tests photographed while alterations were being made to the front end in an attempt to improve the streamlining and increase the performance.

The Curtiss Thrush

YESTERDAY'S WINGS

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■ One of the more puzzling airplane models turned out by a major U.S. manufacturer was the Curtiss Thrush introduced in mid-1929.

In a way, this was the first product of a new company, since the longestablished Curtiss Aeroplane & Motor Co. and the Wright Aeronautical Corp. had just merged to form Curtiss-Wright. This was the time of big mergers that saw the formation of such other aviation giants as United Aircraft and Transport Corp. and General Aviation Corp.

Curtiss built both airplanes and engines, while Wright built only engines. After the merger, the production of Curtiss engines was transferred from the Curtiss complex in Buffalo, N. Y., to the Wright facilities at Paterson, N.J.

The six-place Thrush was an enlarge-

ment of the popular three-seat Curtiss Robin. Introduced in 1928, the Robin was aimed at the top of the privateowner market and some of the shorthaul airlines (there were quite a few single-engine designs in scheduled airline service then).

The Thrush, which carried on the Curtiss tradition of naming its airplanes after birds, was a conservatively configured, high-wing, cabin monoplane. Fuselage construction was somewhat unorthodox in that the cabin area was built of welded steel tubing while the aft portion was aluminum tubing joined with formed sheet metal fittings riveted together. The tail surfaces were welded steel tubing and the wings used wooden spare and pressed, sheet aluminum ribs with the reliable, old Curtiss C-72 airfoil. Access to the cabin was through two separate doors on the right side. Two pilots sat at dual controls.

The puzzling aspect of the Thrush was the choice of powerplant. The engine was the unique six-cylinder, tworow Curtiss Challenger. This 185-hp radial was the same engine used in the most powerful versions of the Robin that had started with 90 hp and then worked up. Yet, the Thrush had six seats to the Robin's three, and half again the Robin's gross weight. How this airplane was expected to be competitive in any way but operating cost



The second Thrust prototype fitted with a 225-hp Wright J-6-5 Whirlwind engine that made it similar to the production Thrust J model. Note the large balanced rudder characteristic of the three prototypes only.

CURTISS THRUSH continued

is a question that cannot be answered today.

The principal competitors in the sixplace field were the Ryan Brougham and the Travel Air 6000. Both had started in 1927 with 220 hp, had advanced through 300-hp engines, and by 1929 were up to 420, yet the same-size Thrush was introduced with only 185 hp.

The hatching of the Thrush was a rather unusual procedure, too. Three prototypes were built in Curtiss' experimental plant in Garden City, N. Y., but the production models were to be built in the Curtiss-Robertson plant near St. Louis, Mo., some 800 miles away. The Curtiss-Robertson Airplane Manufactur-

	Production	
	Prototypes	Thrush J
Price	\$10,000	\$12,000
	Specification	S
Powerplant	Curtiss Challenger,	Wright J-6-5 Whirlwind
	185 hp @ 2,000 rpm	225 hp @ 2,000 rpm
Span	48 ft	48 ft
Length	32 ft 4 in	32 ft 71/2 in
Wing Area	305 sq ft	305 sq ft
Empty Weight	2,160 lb	2,260 lb
Gross Weight	3,584 lb	3,800 lb
	Performance	1
High Speed	110 mph	122 mph
Cruise Speed	94 mph	104 mph
Initial Climb	465 fpm	650 fpm
Service Ceiling	10,100 ft	13,200 ft
Range	554 mi (60 gal)	493 mi (60 gal)
	1.015 mi (110 gal)	905 mi (110 gal)

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Outdoor Girl, the third prototype Thrush modified to production configuration and used by Louise Thaden and Frances Marsalis to set a women's endurance record in 1932.





The Outdoor Girl refueled by a Curtiss Robin during its record eight-day endurance flight. The special modifications for the flight required a change of license status from NC (unlimited) to NR (restricted).

ing Co. had been formed in 1928 to manufacture the Robin after the Garden City plant had turned out the prototypes.

Curtiss had bought out Robertson Airlines, operator of a small airplane modification plant, flying school, and holder of Contract Air Mail Route 2 from St. Louis to Chicago. It's main claim to fame at the time was having had Charles A. Lindbergh as it's chief pilot prior to May 1927. A new factory was built in Anglum, Mo., and most of the over-700 Robins were built there before the plant began to produce other models. After the merger, Curtiss-Robertson became the St. Louis Airplane Division of Curtiss-Wright.

The Thrush prototypes were obviously underpowered from the start, but Curtiss went ahead with the certification



program anyhow. Consecutive Approved Type Certificates (ATCs) were issued to the first and third articles in June 1929, with the first getting ATC-159 and the third, with very minor differences, getting ATC-160. The second article remained experimental for a while to try higher-powered engines.

Although they were certificated, the Challenger-powered models were poor performers with little sales appeal. Curtiss tried several different forms of engine cowling and front-end improvement in a quest for better performance, but finally gave up and converted the two airplanes to the later 225-hp "J" model, which was awarded ATC-236 in September 1929. No 185-hp Thrush models were sold.

The production models built in St. Louis as Thrush J used the 225-hp Wright J-6-5 Whirlwind engine, hence the "J" in the designation. While the reengined prototypes had been certificated with this same engine, there were enough minor changes and refinements to justify still another ATC, No. 261, which was awarded in October. Sales were slow, not so much as the result of sluggish performance of the airplane but because of the depression. Altogether, only 10 production Thrushes were built and sold before the St. Louis plant was closed in 1931. It reopened a year later, but did not resume Thrush production.

Of the 13 built, only one Thrush achieved a degree of fame. The third prototype article, NR 9142, was piloted by Louise Thaden and Frances Marsalis to a new women's refueling endurance record. They kept the "Outdoor Girl" aloft in the vicinity of New York City for eight days, four hours, and five minutes, landing at Valley Stream, L.I., Airport on August 22, 1922.