The bird *and the* leprechaun

A legendary airplane and the man who made it famous

BY BARRY SCHIFF PHOTOGRAPHY BY MIKE FIZER

IN 1927, TEXAS-BORN DOUGLAS CORRIGAN was a relatively new pilot who worked for Ryan Aircraft in San Diego as a welder and mechanic. This is when Charles Lindbergh selected Ryan to build the *Spirit of St. Louis*. Corrigan was instrumental in building the *Spirit* and his image appears in many of the photographs taken during its construction.

Inspired by Lindbergh's success, Corrigan became determined to someday emulate his hero and fly to Ireland, his ancestral homeland. In 1933 he purchased a derelict Curtiss OX–5 Robin for $325 for that purpose.

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In 1928, aviation pioneer Glenn Curtiss believed that the open-cockpit biplane had likely run its course and developed a closed-cabin monoplane, his first serious attempt to manufacture civilian aircraft. He called it the Robin, a continuation of his custom of naming aircraft after birds. The Curtiss Aeroplane and Motor Company built four examples at its Hammondsport, New York, factory and then established a new facility, the Curtiss-Robertson Airplane Manufacturing Company, near St. Louis. The first production Robin rolled off the assembly line there on August 7, 1928. It was a gentle airplane well-suited for flight training and became an immediate success.

Paraphrasing Henry Ford and William Piper, the Robin could be purchased in any color as long as the wings were yellow, the fuselage burnt orange, and the trim black.

The pilot sits alone in a wicker chair. He has plenty of side and head room, thanks to the boxy cross-section of the fuselage, a shape chosen for its ease of construction. Two passengers sit side by side behind him and are a bit squeezed. These rear seats, however, can be staggered slightly to provide each passenger with additional shoulder room. An instructor can center himself on both rear seats and have access to a removable control stick, throttle, and rudder pedals. The Robin originally had three doors, one for each person, but the door on the left was eliminated on later models. There is a 25-gallon fuel tank in each wing, but total fuel load usually is limited to 30 gallons with three people on board.

Early Robins were powered—that's an overstatement—by the Curtiss OX-5, water-cooled, 90-horsepower, V-8 engine. It was the first mass-produced engine in the United States, and thousands had been built during the Great War. Curtiss still had 1,150 of them in inventory, as well as a large supply of parts. These were leftovers from when Curtiss built the Curtiss JN–4 "Jenny," the ubiquitous U.S. Army trainer. It was also the least expensive engine on the market. At one time a brand-new OX–5 sold in the crate for only $20.

OX-5s were so plentiful that they were used on a wide variety of postwar aircraft, including Walter Beech's early Travel Air 2000, the Laird Swallow, the Waco 9, the American Eagle, and others.

The OX-5 had a possibly undeserved reputation for unreliability because of the way it was maintained and the conditions in which it was operated. Eventually, though, the inventory of OX-5s became depleted, and subsequent models of the Robin were equipped with more powerful, more reliable radial engines.

Starting an OX-5 can be an involved process: 1. Bang the 16 intake and exhaust

The wicker pilot's chair (above) is uncomfortable, but satisfactory for short flights. The distinctive, forward-looking side windows that go almost to the floor help to compensate for poor over-the-nose visibility during ground operations. The narrow, 30-inch landing-gear tires are from an antique automobile.

valves with a piece of wood to ensure than none are sticking; 2. Spray the valve guides and pushrods with a lubricant (because they are not lubricated in flight); 3. Grease each rocker-arm assembly (using a grease gun); 4. Open the fuel valve to fill the gascolator and carburetor; 5. Drain the four carburetor bowls to eliminate the risk of water; 6. Flood the float chamber (from inside the cowling using a needle valve); 7. Pull the propeller through eight strokes to ensure that each cylinder has compression—the moaning noise made by the bearings sounds as though you are waking a beast from its slumber; 8. Lower the choke lever on the instrument panel; 9. Raise another lever to open the radiator shutters; and, 10. Turn on the single Scintilla magneto.

As someone "props" the engine, the pilot simultaneously cranks the ignition booster. With a little luck, the cantankerous V-8 comes to life, and the sequentially opening exhaust valves make a delightful rhythmic chorus of popping and crackling. There is also lots of banging and black smoke. You then adjust the choke as

SPECSHEET

Curtiss Robin

Base price: $4,000 in 1928

Specifications

Powerplant	Curtiss OX-5 water-cooled, 90-hp V-8
Typical TBO	300 hr
Propeller (metal)	94-in Curtiss Reed
Max allowable engine rpm	1,400 rpm
Length	25 ft 10 in
Height	7 ft 10 in
Wingspan	41 ft
Wing chord	6 ft
Wing airfoil	Curtiss C-72
Wing area	265 sq ft
Wing loading	8.2 lb/sq ft
Power loading	24.1 lb/hp
Seats	3
Cabin length	7 ft 8 in
Cabin width	2 ft 8 in
Cabin height	3 ft 9 in
Empty weight	1,480 lb
Max gross weight	2,173 lb
Useful load	693 lb
Payload w/full fuel	393 lb
Max takeoff weight	2,173 lb
Max landing weight	2,173 lb
Fuel capacity	50 gal (50 gal usable) 300 lb (300 lb usable)
Oil capacity	16 qt
Coolant capacity	8 qt
Baggage capacity	25 lb

Performance

Takeoff time	7-9 sec
Rate of climb, sea level	450 fpm
Max level speed, sea level	99 mph
Cruise speed (75% power)	84 mph
Fuel consumption (75% power)	8 gph
Oil consumption (75% power)	2 qt/hr
Max range (full-throttle, no reserve)	608 sm
Max range (1,120 rpm, 80% of maximum)	850 sm
Endurance (full-throttle)	6.1 hours
Endurance (1,120 rpm, 80% of maximum)	10.7 hours
Fuel consumption (full throttle)	8.2 gph
Fuel consumption (1,120 rpm, 80% of maximum)	4.9 gph
Service ceiling	12,750 ft
Absolute ceiling	16,650 ft

Limiting and Recommended Airspeeds

V_{S1} (stall, clean)	44 mph

All specifications are based on manufacturer's calculations. All performance figures are based on standard day, standard atmosphere, sea level, gross weight conditions unless otherwise noted.

The water-cooled Curtiss OX-5 V-8 engine (left) does not have rocker (valve) covers to protect rocker arms, valve stems, and valve springs. The instrument cluster (below right) contains the altimeter, tachometer, oil-pressure gauge, and water-temperature gauge. The airspeed indicator is above the cluster.

the oil and coolant (distilled water and a dollop of soluble oil) warms. A minimum coolant temperature of 140 degrees is required for takeoff. With a maximum-allowable engine speed of 1,450 rpm, the OX-5 is a slow-turning, high-torque engine, allowing for an unusually long, 94-inch, high-thrust propeller. It is so slow that you get an uncomfortable feeling during takeoff that the engine is not delivering enough power.

Interestingly, the OX-5 will run happily and vibration-free on either bank of cylinders should one of its two carburetors become fouled.

The radiator is in the nose, and the cowling is louvered to assist in cooling. Only the right fuel tank has a gauge, and it is under the wing root where fuel flows out of the tank.

Visibility from the cockpit is good thanks to an abundance of windows and a skylight. The distinctive forward-looking side windows that go almost to the floor help to compensate for poor over-the-nose visibility during ground operations. The narrow, 30-inch main landing-gear wheels (antique automobile tires) are eight feet apart and provide excellent ground stability.

The Robin originally had no brakes and was equipped with a steerable tail skid that swiveled with rudder movement. Later models, though, had heel-operated brakes and steerable tail wheels.

The flight controls are sluggish and contain lots of system friction. Pull the stick back to raise the elevator on the ground and it stays raised. The airplane is a workout in turbulence, partly because of its 41-foot wing span. Pitch trimming is accomplished by moving a long handle (the "stabilizer adjuster") from notch to notch, which makes fine trimming impossible.

Over-the-nose-visibility is poor during landing but excellent peripheral visibility from those forward-looking side windows and slipping helps quite a bit. (The Robin does not have flaps.) Wheel landings in a crosswind are challenging because the rudder is blanked out by the fuselage when lowering the tail.

Recommended speeds for the Robin are not published, but it lifts off at about 35 mph. Climb and approach seem to work well at 50 mph, and cruise speed is about 60 mph. (There are no color-coded markings on any of the instruments.)

The Depression and competition from newer types of aircraft brought production of the Robin to a halt in 1930 after 750 had been built. More than 300 had OX-5 engines.

On June 4, 1935, brothers Fred and Al Key (the "Flying Keys") took off from Meridian, Mississippi, in a Wright Whirlwind-powered Curtiss Robin named *Ole Miss* and landed (with the help of aerial refueling) 27 days, 5 hours, and 34 minutes later, breaking the world endurance record.

The flight for which the Robin is best known, however, probably is the one made by Douglas Corrigan.

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After working for Ryan, Corrigan became a skilled pilot and attempted to become an airline or military pilot. His applications were rejected. He was color-blind and lacked a formal education.

He spent considerable time and effort rebuilding his old Robin. He also installed additional fuel tanks; substituted a five-cylinder, 165-horsepower Wright J6-5 radial engine for the OX–5; and named his airplane *Sunshine.*

Beginning in 1935 Corrigan spent three frustrating years trying to obtain permission (required in those days) to fly his airplane to Ireland, but the Bureau of Air Commerce always found a reason to deny approval, especially after Amelia Earhart's disappearance in 1937.

Corrigan eventually decided to make a nonstop flight from Los Angeles to Roosevelt Field in New York, and on July 8, 1938, he broke a world record in the process. His announced goal was to then take off from nearby Floyd Bennett Field and return nonstop to California. On July 17, the 1,500-hour barnstormer took off and disappeared into the fog, ostensibly heading for Los Angeles. His only map showed the route from New York to California. Corrigan instead headed across the Atlantic Ocean for a rendezvous with destiny.

The next day he landed at Baldonnel Airport in Dublin. Perhaps with a touch of blarney, Corrigan said, "I left New York yesterday morning for California and got mixed up in the clouds. I must have flown the wrong way." The plucky pilot said that his primary compass had leaked and that he had to use his back-up compass, a 20-year-old, wartime relic that was mounted on the floor. In looking down at the instrument, he said that he must have followed the wrong end of the needle, a "mistake" that was to have continued for 28 hours and 13 minutes. He claimed that he ended up in Ireland by pure chance. Officials in Dublin showed him a newspaper article about an unknown pilot who had taken off from New York and disappeared over the Atlantic.

When asked how he kept his wings clear of ice, he said that he used a long pole to scrape off the ice. No one questioned how he could do this in a 100-mph slipstream or how he managed to reach the tops of the wings. Nevertheless, Corrigan became an instant national hero and a favorite son of the Irish. His flight became the hoax of the century.

The Bureau of Air Commerce immediately suspended his pilot license, but only for those few days when he was on a ship returning to America.

Corrigan was given a ticker-tape parade in New York City that attracted more people than saw Lindbergh 11 years earlier. The short, red-headed leprechaun of a man became instantly known as "Wrong Way Corrigan," and was the delight of the country. A year later he starred in an RKO movie, *The Flying Irishman*, and authored a book, *That's My Story.* Most of the gifts given to him were compasses.

President Franklin Delano Roosevelt told Corrigan that he didn't doubt his story for a minute. The *New York Post* printed a front-page headline that read, !NAGIRROC YAW GNORW LIAH (read it backwards).

The moral of this story might be that it is easier to obtain forgiveness than permission.

Corrigan was the last of the widely acclaimed pilots to fly the Atlantic, the end of an era. He flew for the U.S. Army during World War II, became a test pilot, and eventually retired in Santa Ana, California, where he died on December 9, 1995, without ever having changed his story. Well preserved, his Curtiss Robin was in the garage.

The immaculately restored Robin on these pages was manufactured in 1928 (serial number 45) and shipped by rail to the Curtiss Flying Service (a flying school) at Mines Field, now known as Los Angeles International Airport. It was purchased in 2002 by Walter Bowe and Bud Field, who restored the airplane in Livermore, California. NC76F spent its entire life in California until 2008 when it was sold to George Jenkins, owner of the Eagles Mere Air Museum (www.eaglesmereairmuseum.org) in Laporte, Pennsylvania, where it flies regularly. AOPA

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