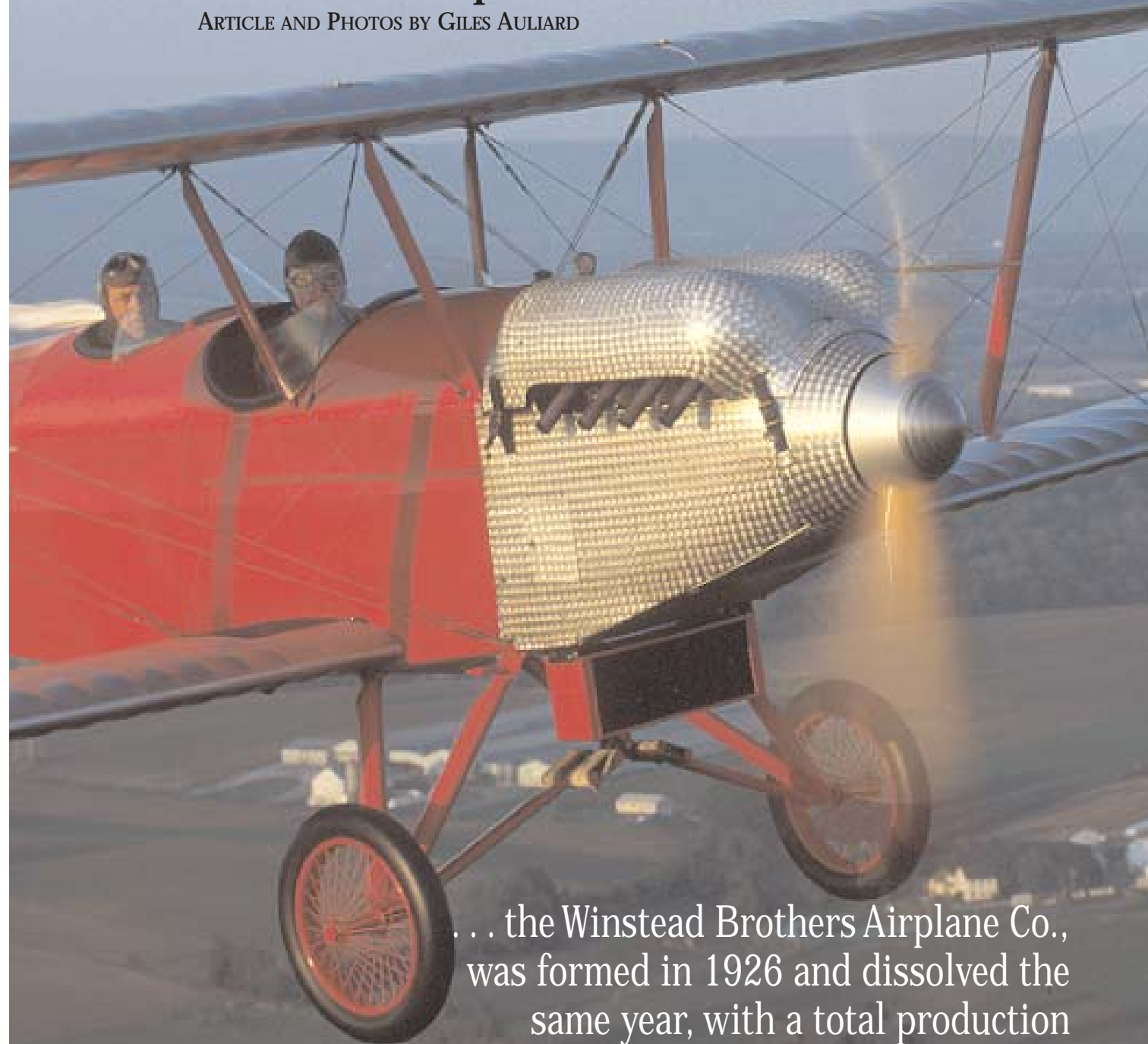


The Winstead *Special*

The 1920s were “Special” . . .

ARTICLE AND PHOTOS BY GILES AULIARD



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At the beginning of the 1920s a great number of small airplane companies were created. But at the beginning of the following decade, more than 90 percent of them were history, some having built only one airframe, others none. One such company, the Winstead Brothers Airplane Co., was formed in 1926 and dissolved the same year, with a total production run of exactly one airplane. Thanks to Paul Dougherty, president of the Golden Age Air Museum of Bethel, Pennsylvania, this historic machine is still alive, and it graces the sky of central Pennsylvania on all-too-rare occasions.

During a bustling period in the 1920s, Wichita, Kansas, became one of the premier centers for airplane design and production, starting with the famous Swallow Airplane Manufacturing Co., created by Matty Laird in 1919 as the E.M. Laird Co. Under Laird's guidance, Swallow became one of the first successful post-war airplane manufacturers, with the Laird Limousine and, later, the Swallow. By 1924, Matty Laird had left, and Jacob "Jake" Moellendick was

presiding over its destiny. In his team were two brilliant young engineers with advanced—for the time—ideas: Walter Beech and Lloyd Stearman. In their after-work hours, they were building their own vision for the plane of the future, an airframe with a steel tube structure fuselage. After all, the idea was not new and was put to good use by the Germans during World War I, specifically with the Fokker D.VII, which gave allied pilots a tough ride.

After completing their project, Beech and Stearman presented the fruit of their illicit labor to Jake Moellendick, who did not really appreciate their efforts, and commented thusly: "No way . . . Our customers trust wood, and that's what they will get. . . ."

At that point, the two friends decided to part with such a short-sighted company and create their own. Late in 1924, Beech and



Typical of early airplanes, the Winstead's panel is "filled" with instruments related mostly to the engine's operation. The height gauge and a clock are the total complement of flight gauges.

Stearman visited an older fellow to ask him to participate in this new and risky endeavor. After a lot of convincing, Clyde Cessna agreed to put his expertise (and his money) in the Travel Air venture. With the new company incorporated on February 4, 1925, the trio was writing a new page in the history of aviation books.

The first product of the newly created Travel Air Manufacturing Co. was the Travel Air 1000, swiftly amended into the Travel Air 2000, and finally, by installing a radial en-



Prior to starting the OX-5, Paul Dougherty, president of the Golden Age Air Museum of Bethel, Pennsylvania, primes the engine.

gine, the Model 4000. All of those designs had more than a family resemblance to the Swallow project.

Left with the fuselage of the now moribund Swallow project on his hands, Jake Moellendick decided to get rid of it and sold it to one of his employees, a fellow named Carl Winstead. A pilot and a mechanic, Winstead, along with his brother, Guy, was working to create yet another airplane company. Leaving Swallow, he embarked on making the Beech and Stearman creation his own. The fuselage was used as it was designed and built, while the wings were of Swallow design, with an atypical shorter wingspan. They were attached to the fuselage with four vertical bolts running through the spars and standard Swallow fittings. The engine mount was of Swallow design, sporting an example of the ubiquitous Curtiss OX-5.

Paul Dougherty comments:

“We figure that they loaded their pockets with as much Swallow stuff as they could before leaving. . . . The tail is Winstead’s design; it has an aluminum tube for the horizontal stabilizer, the rest was steel tubing. In early photographs, the tail was braced with only one set of wires. We think it wobbled quite a

bit, since they added a second set soon after the initial flight. The landing gear was purchased from Nicholas Beasley Co., of Marshal, Missouri. According to the Winstead family, the airplane had a radial engine before the OX-5, but we could not find any proof of this.”

Looking somewhat like a clipped-wing Travel Air 2000 (without the elephant ears), the resulting flying machine was called the Winstead Special. With all their finances sunk in the airplane, and with no hope of selling it, Guy and Carl dissolved their company, going their separate ways.



Winstead Special

- N2297
- Certificated in 1926.
- Constructor number: 1
- Engine: . . . 90-hp Curtiss OX-5 with Berling mags
- Wingspan: 29 feet, 6 inches
- Length: 26 feet
- Gross weight: 1,800 pounds
- Cruise speed: 80 mph
- Seats: 3
- Stall speed: 45 mph

Instruments:

- One 4-inch Zenith height meter
- One 4-inch Consolidated tachometer
- Dixie single-ignition magneto switch
- Bubble-face compass
- Consolidated oil pressure gauge
- Rim-wind clock
- Moto meter-style water temperature gauge

Carl and the Special stayed on the aviation scene, joining in the Flying Aces Air Circus in the late '20s, with Jessie Woods walking the wings, as well as barnstorming. “Everything for a buck,” as Paul puts it. The Special was sold to Marvin Mara in 1930, who employed it to barnstorm around the Midwest and, believe or not, in air racing. After changing hands multiple times, the Winstead was deemed unairworthy in 1937. The owner at the time, J.J. Davis of Ayre, Nebraska, took it apart and put it in storage. Resurfacing in the '80s, the Special was traded with the Airpower Museum of Ottumwa, Iowa, where Paul and his father, Paul Sr., found it in 1995.

After the “Special” episode of his life, Carl went on with his aviation career, becoming one of the first Cessna Aircraft Corp. employees, helping build the A series. He later became Cessna’s chief test pilot, taking the model 190 for the first time in the air on December 7, 1945. Shortly thereafter, however, Carl died while testing the Cessna 195. Guy Winstead joined Travel Air in 1926, helping with the design and construction of the Travel Air 5000 model, which was built on Cessna and Winstead’s own time, in the same manner as Beech and Stearman proceeded with the Special.

Paul continues:

“My father and I purchased it from them [the AAA’s Airpower Museum] in 1995. The restoration was very extensive. Three of the wings were replaced, as well as the center section. Damage could be seen in the original center section from wing walkers. The lower ailerons were replaced. The only thing missing prior to the restoration was the vertical fin and rudder, plus the seats. We re-created them from photographs because no blueprints exist. It took some four years before the airplane could fly again.”



Also on display at the museum in Bethel, Pennsylvania, is Andrew King's Ryan M-1, shown here in formation with the Winstead Special.



Just look at that beautiful grass at the Golden Age Air Museum! The Winstead's rudder and fin were missing from the project, but Paul and his restoration crew were able to re-create the structure using photographs for reference.

After three years of flying the airplane, he describes its characteristics:

"It flies very nicely. The OX-5 puts out plenty of power for the airplane, and the climb rate is respectable for its vintage. Contrary to [what] one might think, its short wings and the four ailerons are only giving it a modest rate of roll. The elevator is very responsive, but does not have any trim. However,

it can be changed on the ground by removing the attach bolt and changing washers. But this is too much work for little results. The rudder is also very responsive and works very well upon taxiing. The airplane does not have any brakes or a steerable tail skid. The rudder is all you have to steer the airplane.

"The takeoff distance is, depending on the load, between 400 to 800

feet. The stick forces do not change too badly between one or three people on board. Landing rolls can be very short, if you want it, the tailskid acting as a very efficient brake. Formation flying is interesting, because it takes a lot of coaxing to accelerate. The OX-5 is flying very close to full power during cruise, and the only way to accelerate is to give all what little power it had left. I set the engine at about 1400 rpm on the takeoff roll, at 1350 to 1400 in normal cruise, and 1525 during 'fast' cruise. You realized that there is not much room to play with power. We never experienced an overheating problem, even on the hottest day. The airplane is much more nimble in the air and has a lighter feel than a Travel Air. The OX-5 is also one of the smoothest engines I have ever flown behind. We are rebuilding a Jenny, and if it flies even only half as good as the Winstead, it will still be a lot of fun."

Since its first flight, the airplane has been an anchor at the Golden Age Air Museum, and a living memorial to those little companies born in the roaring '20s.