



War hero

Making the case of a glamorous past for our AOPA sweepstakes airplane

BY ALTON K. MARSH

Our AOPA Sweepstakes Waco UPF-7 was a dashing war hero. Well, we're not sure it was a hero, exactly, but it did serve almost from its birth in 1940 as a training aircraft for the Civilian Pilot Training Program

(CPTP). And Wacos often did the most glamorous training in that program, like aerobatics. The purpose of the program was to provide a pool of pilots in the event of war. So there it is: We've elevated our Waco's past to the level of *glamorous* and *dashing*.

The CPTP was glamorized by Hollywood in the 1939 movie *20,000 Men a Year*. We'll borrow this link with Hollywood as further proof of our Waco's glamorous past. OK, the evidence is sketchy and the film was panned by critics as one of the worst of that year, but it served to fire the imaginations of college students who were recruited for the program. Incidentally, the movie title is inaccurate: When the program began in 1939, 10 percent of all CPTP trainees were women. However, women were banned from participation starting in June 1941.



CPTP—an instructor's perspective

We haven't tracked down exactly what our Sweepstakes Waco did on a day-to-day basis, but we did find a former CPTP instructor, Holland L. "Dutch" Redfield, who included an account of his days teaching aerobatics in a similar Waco UPF-7 aircraft in his book, *Thirty Five Years at the Outer Marker*. Although the book is out of print, photocopies may be obtained through a Web site (www.geocities.com/vmken/BookRedfield.html).

Redfield, who at the end of his career was teaching Pan American pilots to fly the Boeing 747, loves the Waco UPF-7 to this day, saying that it is built like a brick structure of high utilitarian value—his description was shorter. To quote Redfield, he loves "the open cockpit, the magnificent radial engine, the large disk'd propeller, the control stick between

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the knees—I am pleased.” He describes the sound of the giant propeller with the engine at idle power. “A slow rhythmic whish whish whish whish whish—like the beat of a swan’s wings in flight...”

Redfield describes the UPF-7 as a tough, rugged airplane, built to rigid military trainer standards and therefore lacking the nimbleness of other Waco models. “But you didn’t have to worry about the UPF-7 falling apart under the high stresses of the advanced aerobatic maneuvering that was called for in the course program.”

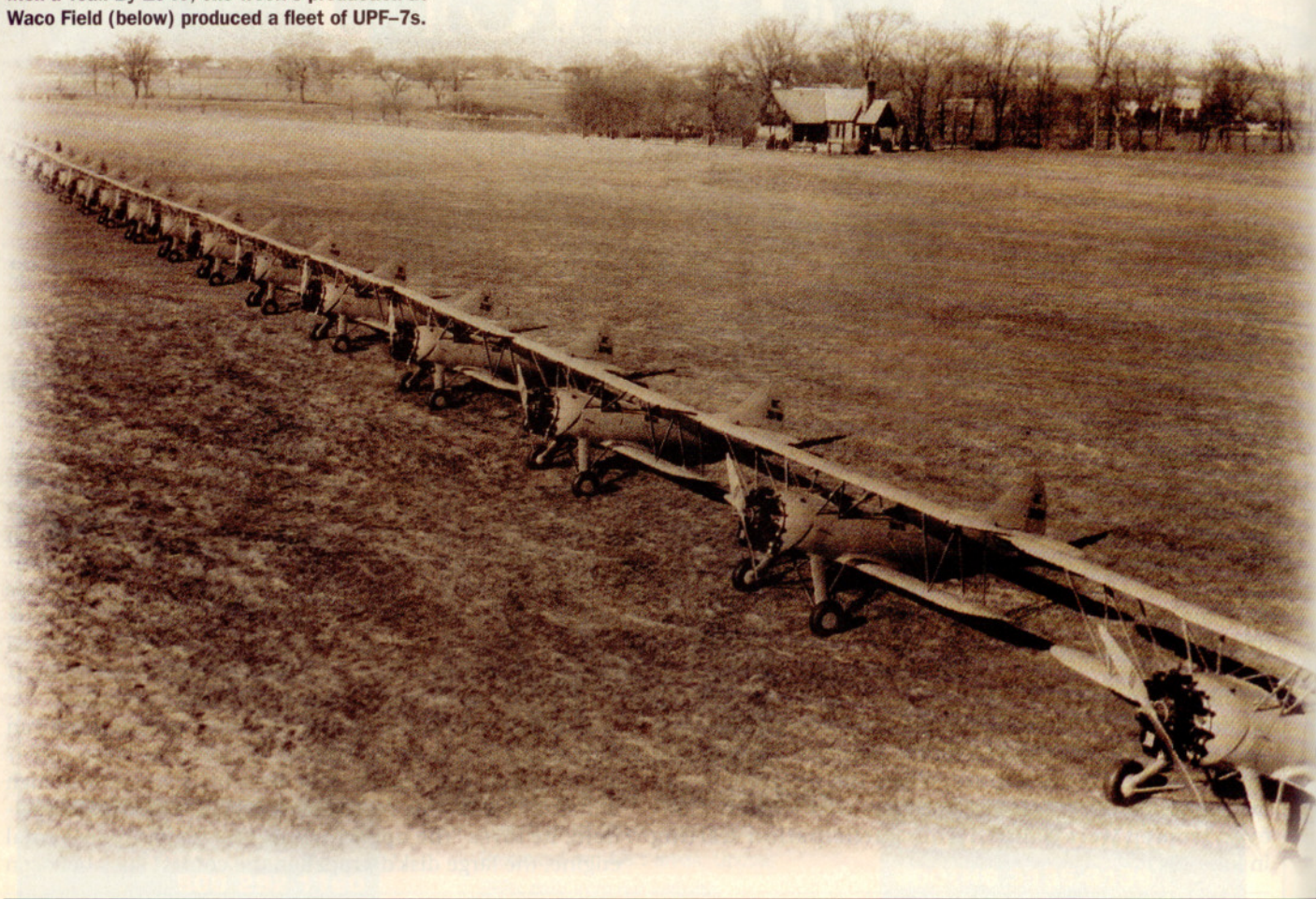
Seven days a week

It’s a good thing Redfield liked his airplane, because he spent seven days a week in it. “Working with my six students, I might spend the entire day Monday, hour after hour, doing exacting eights around pylons; Tuesday, beautiful chandelles; Wednesday—all day—snap rolls; Thursday, demanding slow rolls; Friday, punishing split S’s; Saturday, half-rolls; Sunday, Immelmans.” His

COURTESY OF R. F. SEMLER



The CPTP began in 1939 and received a boost with the release of the film *20,000 Men a Year*. By 1940, one week’s production at Waco Field (below) produced a fleet of UPF-7s.



“The airstream sounds of flight and the whistling wing-brace wire sounds rapidly diminished to absolute silence, and we hung there like a spent arrow.”

—*Holland Redfield*

role as a CPTP instructor lasted through three years of the early 1940s and 1,900 hours of flight.

Not all of those hours were placid ones. Hearing from his boss about a “square loop,” Redfield decided to try one. As he applied negative Gs, the engine quit while the UPF-7 was nearly vertical. “The airstream sounds of flight and the whistling wing-brace wire sounds rapidly diminished to absolute silence, and we hung there like a spent arrow. Cows mooing, dogs barking, train whistles, and auto horns beeping below could be clearly heard. Still we hung there, pointing straight up, despite everything I tried.

“It seemed forever before the Waco slowly started sliding backwards, and then, with a resounding, neck-bending crash, flipping violently end for end, in a split second it was pointed straight down. As we dove for the Earth the dead propeller ahead slowly began turning again, and the sounds of flight came alive. Clank, clank, clank, clank, clank, and the engine windmilled back to life. My student in the cockpit behind banged the coaming and yelled, ‘That was fun. Let’s do it again!’”

No chickens here

Then there was the day another instructor nearly dumped a student whose seat belt had become unfastened during a roll.

“With his belt unfastened, he actually had started to tumble out of the rear cockpit,” Redfield writes in his book. “He had somehow been able to



“The inverted spin was very, very violent. It wraps up very fast.”

—Bill Brannen

stay with the airplane by jamming the big toe of his right foot under the stabilizer hand crank on the cockpit side wall, while at the same time catching and maintaining a tenuous grasp on the cockpit coaming with just the fingertips of the opposite hand. He then clung desperately, but listened patiently, as his instructor through the still-attached Gosport tube gave a lengthy dissertation on the finer points of flying a half-roll. Later on the ground, the student tried to explain to his instructor what had taken place up there. The wide-eyed instructor asked, ‘My gosh, why didn’t you holler?!’ The student replied, ‘I didn’t want you to think I was chicken!’”

After our AOPA Waco flies this fall, we’ll try some of those tricks—not the ones where the pilot falls out of the airplane, but light aerobatics—and give you a full report on open-cockpit flying in aviation’s Golden Age.



The location of this ground loop is unknown, but the aircraft above is our AOPA sweepstakes Waco.

CPTP—a student’s perspective

Bill Brannen, a 79-year-old resident of Eatonton, Georgia, had just graduated from high school in 1942 when he volunteered to be a Navy pilot. Actually, he first tried unsuccessfully for the Army Air Corps. The Navy recruiter looked askance at his high school grades and commented that they weren’t very good. Brannen agreed: “I know, but I’ll be the best fighter pilot you ever saw.”

“You’re in,” the recruiter answered. At that time, the military services were taking advantage of the Civilian Pilot Training Program, even though it was aimed primarily at civilians. Brannen found himself first at Howard University for CPTP primary flight training in a Piper J-3 Cub, and later in a class of 25 students at Auburn University for advanced training in a Waco UPF-7. Most of his classmates were college undergraduates and graduates.

The trainees were given a room in a boardinghouse, food, and transportation to and from the Auburn-Opelika Airport—the hangar they used is still there today. But no money. That had to come from home. The two-month

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course ran six days a week, ground school in the morning and two 1.5-hour hops in the afternoon. The classwork was difficult for Brannen, so he sat on "Johnny" at night and read while the others slept, since the toilet was the only place where there was enough light, he recalls. Later in his career he proved his intellectual capabilities by getting admitted to medical school. Recalled to military service only a year later, he ended up as a test pilot at the

Patuxent River Naval Air Station in Maryland—a job that equates with a doctorate in flying.

For a man only 5 feet 7 inches tall, the UPF-7 seemed like a huge airplane with an enormous cockpit.

Cadet Brannen passed ground school. In the air, he drilled on maneuvers during the 60 total hours of training; there was no navigation or cross-country

work. For a man only 5 feet 7 inches tall, the UPF-7 seemed like a huge airplane with an enormous cockpit. There were

several types of stalls to learn: those performed straight ahead, those in turns, and accelerated stalls. There were snap rolls to the left—where engine torque

helps the cross-controlled airplane through a violent roll—and more difficult snaps to the right, and there were spins and even inverted spins.

“The inverted spin was very, very violent. It wraps up very fast. In most airplanes, if you turn everything loose, the airplane will recover. With the Waco, you had to give it full opposite controls plus a blast of power briefly to get it to come out,” Brannen recalls.

Keep it flying, stupid

Did he ever do anything wild—like a playful kid might do—while on solo

flights? Not until later during active Navy training when he rolled a Boeing Stearman (N2S) at night. It turned out OK. He’s still here, despite later having a carrier sunk from under him after a grueling eight-hour day of combat and patrol flying.

He wanted to pass along some advice distilled from all those years of experience. It has to do with emergency landings: “Keep it flying, stupid!” Do that, and you’ll live through the crash, Brannen advises.

His experience shows the depth of preparation provided by the Civil-

ian Pilot Training Program, and the Waco UPF-7’s important contribution to the nation’s defense.

We’re proud that AOPA’s Waco, used for training in the Northeast, was part of that history. **AOPA**

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i Links to additional information about Holland Redfield’s book, *Thirty Five Years at the Outer Marker*, may be found on AOPA Online (www.aopa.org/pilot/links.shtml).

A snap roll that ended upside down

Herbert H. Jones Jr., now 78, trained for six months in Waco UPF-7 aircraft with aviation pioneer Cornelius Coffey and his equally famous pilot wife, Willow Brown at the Coffey School of Aeronautics near Chicago. Although he had two years of college, it was one of the few CPTP programs not connected with a university. He flew for six months in the secondary program that was designed to produce commercial pilots and flight instructors. Aerobatics was part of the daily routine designed to produce good pilots.



As a young man (above left), Herbert H. Jones Jr. trained in Waco UPF-7s near Chicago.

"Most of us had flown Piper J-3 Cubs, and the Waco looked like a huge machine," Jones recalls. The Waco, he found, is a docile airplane, but he remembers one day when he recovered from a snap roll—basically a horizontal spin—upside down. He dove from that position, known as a split S, and exceeded the redline air-speed before getting the airplane level. "The Waco is a very strong airplane," Jones said, and it suffered no damage from the high-speed dive.

He recalls there were 15 students in his barracks. Training did not start until 9 a.m. It was winter, and the school didn't want to start the airplanes in the cold temperatures. Today, Jones owns Metropolitan Aviation with his wife at Washington Executive/Hyde Field in southern Washington, D.C. —AKM



A Trojan horse that flies

Troy, Ohio, was home to the Waco

Troy, Ohio, always has been, still is, and always will be linked to aviation. I'll tell you why.

The Waco Aircraft Company came to town in 1923, where 17 years later it built our AOPA Centennial Sweepstakes Waco UPF-7 trainer. The factory is still standing, although today it serves as an industrial

warehouse. Look into the rafters of that building, and you'll find equipment used to steam and shrink the fabric onto the steel-and-wooden Waco airframes.

The company cafeteria also remains and now houses a lawn-care company. The final assembly building, a much smaller complex of two hangars, also

survives, and is home to a high-tech company. The runway disappeared in the 1960s, but a few Trojans—Troy citizens call themselves *Trojans* after ancient Troy—learned to fly there. In many respects, the community looks the same as it did in the 1940s and 1950s. Parking spaces on the downtown streets are at an angle to the curb, as was once common in towns throughout the country.

The community loved Waco founder Clayton Brukner, and he returned their affection. When it appeared that his company would move, townspeople sent their youth door to door to collect donations, and they made a gift of land for a new factory. Brukner contributed heavily to local causes and left behind a nature center that he built in his declining years. After leaving aviation he invented a hydraulic log splitter and the Orbitan, the forerunner of today's tanning beds. While building the nature center, he didn't like the way the bulldozer worked, so he took it apart and rebuilt it to work more efficiently.

A link to aviation remains at the site of the former Waco factory, since Goodrich Corporation Aircraft Wheels and Brakes uses the space where gliders were built during World War II to make brakes for military aircraft and the space shuttle.

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The Waco Aircraft Company plant was located off Peters Pike in Troy, Ohio, in 1929 (above). Aircraft are shown in production at the Waco plant (below).

Troy will retain a link to aviation long into the future. Several Trojan pilots have established aviation education programs that reach students nationwide. Nick Engler has established on the Internet a virtual museum called the Wright Brothers Aeroplane Company Museum of Pioneer Aviation (www.first-to-fly.com). He has built several models of Wright brothers kites



and powered aircraft that tour worldwide to the delight of school-children. Jack Waters and Jim Beisner serve as president and chairman of the board, respectively, of the Waco Historical Society, a group of volunteers who have established a Waco aircraft museum at a grass strip on the south edge of Troy (www.wacoairmuseum.org). They have also stocked a downtown museum with artifacts and photos. Beisner taught chemistry and aviation courses in

the local high school, and one of his pupils was astronaut Nancy Decker Currie. Others active in the museum are Steve and Marla Boone. Steve taught ground school in a local high school. The Boones are part owners of a Waco ASO now in refurbishment.

Thanks to the pilots and enthusiasts of Troy, AOPA has a sweepstakes airplane, and the nation has a current and future generation of aviation leaders. —AKM

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