

THE 1930 CONSOLIDATED YPT-6A



From faded history to flying high

BY SPARKY BARNES SARGENT

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Sometimes it takes a team of savvy sleuths to solve a conundrum. In this case, the team is a married couple—VAA members Mark White and Mary Wood, of Vero Beach, Florida—who purchased a 1930 Consolidated Fleet biplane project in Ohio and hauled it home to Indian River Aerodrome back in 2002. They were in the beginning stages of making it airworthy when the conundrum arose. There, clearly stamped on the cowling/engine compartment and cockpit coaming was a distinctive three-digit number, which wasn't the same as the three-digit serial number in the aircraft's paperwork.



CHRIS MILLER

A previous owner had adapted the engine for an alternator, but Mark chose to go back with a wind-driven generator.



Inside the front cockpit.

SPARKY BARNES SARGENT



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Mary demonstrates how to adjust the windshield.

"We were surprised that the numbers didn't match," explains Mary, "and we said, 'Uh-oh! Could this be an airframe with paperwork from a different airplane?'" They put their work on hold temporarily, in case there was a problem. Then step by step they skillfully took charge of the discovery process to uncover their airplane's faded history.

But before we delve into their research, here are some basic specifications for the biplane, which was built by Consolidated Aircraft under Approved Type

Certificate 131 in 1930. This Fleet Model 2/YPT-6A, Serial No. 325, was built for the U.S. government, to be used for training. Its first owner was the Aeronautics Branch, U.S. Department of Commerce (Washington, D.C.). The two-place biplane weighed 1,101 pounds empty, with a maximum weight of 1,675 pounds. Its wings were constructed of spruce spars and aluminum ribs, and it had a stagger of 23 inches, with a span of 28 feet. Measuring 21 feet 8 inches from prop to tailskid, it stood 7

feet 9 inches tall. As powered by its original 100-hp five-cylinder Kinner K-5, its top speed was 110 mph, and it cruised contentedly at 95 mph while sipping from its 24-gallon fuel tank in the upper wing's center section. Price was just under \$4,000.

An Air-Minded Couple

It's not surprising that this husband-wife team enjoys hands-on restoration work. A brief glimpse into their history reveals that both Mark and Mary were aviators before



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Note the flat, adjustable glass windshield and the modern avionics for today's airspace.



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they married each other 11 years ago. Mark grew up around aviation; his first ride was in his family's Tri-Pacer. At the tender age of 11, he had already gained experience flying a Cessna 150, Cessna 172, and a Citabria. When he was old enough to solo, he flew the open-cockpit, parasol-wing, plans-built Corben Junior Ace built by his father, Don. Mark reflects that "I have always been infatuated with airplanes—especially biplanes. I worked on a Champ project with my father, and that's how I really learned about restoration." He also restored an Aeronca Chief and a Piper Colt, prior to restoring the 1930 Fleet.

Mary soloed a Cessna 150 and earned her private certificate in the 1980s, when she attended Embry-Riddle. Her daytime job was working with the Goodyear blimp—handling ticket sales, managing mail, and answering the phones. Her next aviation-related job was working with parts in the shop at Frank Piasecki's Heli-Stat in Lakehurst, New Jersey. She then worked with the crew on the Resorts International airship. Now she works with Flight Safety, in Vero Beach.

Their first date was in a Piper J-3 Cub. It was a windy day, but Mark was determined to fly down from Lantana to a pancake breakfast at Boca Raton—primarily because he knew that Mary was one of the organizers. "It was very windy; it took me two tries to get it on the ground," says Mark, smiling. "There were about 100 people there, and I was the only one who flew in." Mary was suitably impressed.

Now, they're not only devoted to each other, but also to reviving forgotten facets of aviation history, as exemplified by N1P, their 1930 Consolidated YPT-6A Fleet. The biplane was their labor of love for seven

years, and they completed it in May 2009. Their military Fleet was a novelty in the Vintage area at Sun 'n Fun this spring—as well it should have been, given the hands-on work and detective-style research required to resurrect it to its original colors and markings.

Determined Detectives

After finding that puzzling number (384) on the airframe components, Mark and Mary's research started with finding a website that listed serial numbers for Consolidated Aircraft. "We discovered that 30-384 was a U.S. Army Air Corps (USAAC) serial number," explains Mark, "with '30' representing the year of manufacture (1930) and '384' [being the military] serial number." That number corresponded to the manufacturer's construction number—325—which was stamped on the data plate and also recorded in the civilian aircraft records.

Their research also revealed that their biplane was one of 16 built by Consolidated Aircraft Corp. of Buffalo, New York, for the USAAC (an additional six were built for the Navy). "We found out that only four of these aircraft still exist, and since they built so few of these, and hardly anybody knows about them... well, there was no other way to restore it but as a YPT-6A. That led to starting the project all over again, because we decided to do a lot more work on it," he says, laughing and shrugging good-naturedly. "Now, this is the only one flying."

Armed with the knowledge that their Fleet was an Army Air Corps trainer, Mark placed a call to the Air Force's toll-free number to see if he could find out some more information. "When I called, I said, 'I hope I'm not calling the wrong person, but we've purchased this old



CHRIS MILLER

airplane, and it turns out it was used as a trainer in the military. We don't know much about it; is there anybody I could contact that would help me?' She said, 'Sure, you need to call Maxwell Air Force Base in Alabama—here's the phone number.' So I called them, and they wanted us to give them some information to prove that we owned the airplane. So we sent a copy of the registration to them, and they in turn found several pages of records relating to the airplane and sent them to us, free of charge. Those records showed that the aircraft was assigned to Brooks Field in San Antonio, Texas, in 1930. We then contacted Sheila Klein at Hangar 9, Brooks Air Force Base, and purchased a book from her entitled *Wings Over San Antonio*. That book had a photo showing the only Fleet to be assigned to Brooks Field."

Mark and Mary, the ever-resourceful sleuths, took their research to the national level, by contacting the National Museum of the U.S. Air Force, Wright-Patterson Air Force Base in Dayton, Ohio. "They were extremely helpful, and then we contacted their restoration facility. They looked up the information that

had been painted on the side of the YPT-6A, because we had no idea what should be there," elaborates Mark. "They provided us a lot of very thorough, very detailed information—at no charge—and sent us two 8-1/2-by-11 photographs of one of these airplanes that was at Wright-Patterson in 1930. They helped us determine the colors from the black and white photo; the wings should be this yellow, the fuselage olive drab, the fin yellow, and the rudder olive drab and blue, with red and white stripes. The Smithsonian had the Air Corps markings, and they referenced each page in a book that pertained to what we were doing. In the back of that book, there were real paint chips, so we got the colors the same and were also able to get the stars the proper size."

From Military to Civilian

Shedding even more light on the history of their YPT-6A, Mark and Mary explain, "Basically, it's the military trainer version of a Model 2 Fleet, and the 'Y' designation stands for a design which is under evaluation. [PT denotes primary trainer.] There was one experimental XPT-6 model produced, and then

five YPT-6As were produced; our aircraft was one of the five used to evaluate the design. Ten PT-6A production models followed. After its evaluation process at Brooks Field, ours was reassigned to Long Beach, California, in May of 1931. In August of 1931, it was re-designated a PT-6A. In 1933, it was re-designated as a PT-6A Special [Governmental Aircraft License No. NS-50] and was operated with the front cockpit designated for cargo."

The Department of Commerce sold the airplane to Waco Sales of New York Inc. in February 1934, as a Fleet PT-6A Special, Fleet Model 2. It was flown to Roosevelt Field, bearing civilian registration number N13927. It was registered and operated as a Model 2 Fleet from that point forward. In May 1934, the Fleet was sold to a private owner in Houston, Texas. In August 1937, the aircraft was purchased by Aldrich Flying Service of Houston and used for pilot instruction. Interestingly, a note in the aircraft records for 1937 reveals a rather unusual mandate: "Tail wheels are required on all ships operating at the Houston Municipal Airport, Houston, Texas, on account of damage to shell runways by tail



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Husband-wife aviators and restoration team: Mary Wood and Mark White.

1988, when Kenneth Carder purchased it and took it home to Ohio. Mark and Mary purchased N1P from him in 2001, after Mary spotted an ad for it in *Trade-A-Plane*. After completing their research on this unique Fleet, they purchased myriad supplies, donned their shop clothes, and began the years-long restoration process.

Hands-on Restoration

“We did everything hands-on ourselves; we didn’t hire anything out, although we had some help from other folks,” recounts Mark. “A couple of longtime friends and members of the local EAA Chapter 99 group gave us helpful insight to the restoration process. The folks at EAA headquarters were also very helpful.”

Overall, they found the airframe to be in excellent condition, which saved quite a bit of time

that otherwise might have been invested in structural repairs. The most challenging aspect of their hands-on restoration, they say, “was handling the one-piece upper wing during the re-covering process. The upper wing is very fragile, and must be handled with care when removed from the aircraft, and when rotating it from top to bottom.”

They replaced all of the hardware in the aircraft and covered the airframe with Ceconite and finished it with Randolph butyrate dope, using an old-fashioned, 40-year-old compressed air spray system. That was also a challenging process, thanks to the Florida heat and humidity. The forward portion of N1P’s fuselage was originally fabric-covered, but at some point in its history, the fabric from the aft portion of the front cockpit to the firewall was replaced with

skids.—signed by M.F. Clark, Aero. Inspector.”

The Fleet’s registration number (N13927) was changed to N1P in 1953. The aircraft remained in Texas with various owners until



Mary works on one of the biplane wings.



The YPT-6A is ready for its wings.



The cockpit sheet metal coaming, ready for its hand-stitched leather trim.

PHOTOS MARK WHITE



The couple used original paint chips for accurate military colors.



This 1930 YPT-6A had a tailskid and 24-inch air wheels when the Army Air Corps used it as a trainer.

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sheet metal. “We chose to retain the metal, because it serves as protection from fire,” shares Mark, “and it also makes the aircraft much more durable when entering and exiting the cockpit area.”

They wanted to make the biplane as authentic as practical, yet still be able to enjoy flying it to any airport they’d like to visit. Hence, the layout of the front panel is original, while the rear panel sports modern avionics and radio equipment. “The rear panel is for safety and practicality; it has a radio, transponder, encoder, and intercom to make it practical to fly in today’s airspace,” Mark comments. “We know that takes away from its authenticity, but we wanted to fly it and enjoy it.”

They also chose to retain the swiveling tailwheel, and the Kinner 160-hp R-56. This particular Fleet Model 2 was allowed a gross weight increase from 1,575 pounds to 1,740 pounds when the 100-hp Kinner K-5 was removed and the 160-hp Kinner R-56 was installed in 1962. Large tail surfaces were installed at that time, as well. Additionally, a previous owner had adapted the engine for an alternator, but Mark chose to eliminate that and installed a wind generator instead. (He does have the original but

cannot find replacement blades for it, so he’s using a WWII-era generator.) “We’ve received a great deal of priceless information to help keep our Kinner running, from Mr. Al Ball of Antique Aero Engines in California,” shares Mark. “There are very few people with his knowledge of the Kinner and its characteristics.”

Mark and Mary contacted Sensenich, who reviewed the aircraft engine horsepower and aircraft specifications. “They recommended and built for us the W92HA77 propeller, which we are extremely pleased with,” states Mark.

“My cruise speed is 105 mph at 1650 rpm, and it burns 10 gph. We stop for fuel after one and a half hours—just in case the fuel pumps at the [destination] airport don’t work—this gives us plenty of fuel to fly to [another airport]. This airplane used to have a 31-gallon auxiliary fuel tank that was strapped on the belly, and I tracked down the blueprint for it,” says Mark. “It stalls very gently at 50 mph, and the horizontal stabilizer is adjustable in flight—it has a jackscrew trim like a Piper Cub. You have to reach down and pull the cable with your hand—there’s no lever for the trim—and you don’t have to make any trim

adjustment from cruise to power off for landing, because the trim does not change that dramatically.”

Finishing touches for the cockpits included a hand-stitched leather coaming and original-style windshields. A curved Plexiglas windshield is installed for the front cockpit, and Mark located and purchased a flat, adjustable glass windshield—along with several copies of original blueprints pertaining to the biplane—from John Sommerfeld in Texas.


Flying High

Mark and Mary virtually lived with their project, since its restoration took place in their hangar workshop, right next to their home. They both laugh good-naturedly as they share that it was challenging, at times, to work together. Yet they feel that the completed, airworthy Consolidated YPT-6A was well worth the seven years they invested on the project, and the interpersonal learning curves they mastered. They worked primarily on the weekends and occasionally more frequently, depending upon the task at hand. In retrospect, Mary emphasizes, “Perseverance is very important.” And Mark reflects, “Everybody has their own

idea how to tackle something. They usually end up with the same end result, but it's sometimes difficult to agree on the same process—yet neither one is wrong.”

Smiling, Mark recounts the project: “There were times you wish you’d never started on it, but you get through that. I think you feel better when it’s finished, and you’re flying it. There’s also just the satisfaction of knowing you’ve done it!” In the midst of the restoration, both Mary and Mark experienced their own personal transitions when they each lost their respective fathers. Mary poignantly shares, “The most important mission the aircraft has performed recently is when we used it to scatter the ashes of Mark’s father over his favorite fishing area on an early Sunday morning.”

They’ve also been flying their YPT-6A to local fly-ins, proudly transforming what was once faded history into vibrant reality, as together they fly high through the Florida skies. Throughout the week of Sun ‘n Fun, Mark and Mary always seemed to have an inquisitive crowd gathered around their biplane, and the couple was bubbling over with enthusiasm as they answered myriad questions. Perhaps equally rewarding as the interest they received was the fact that the judges took special note of their restoration endeavors and selected N1P as the Outstanding Open Cockpit Biplane Antique.

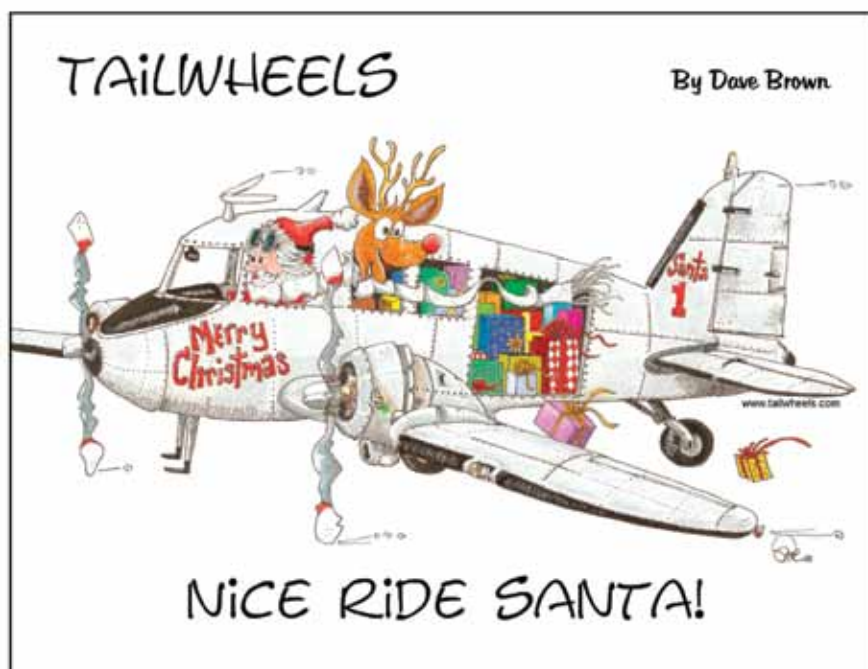
The YPT-6A is the first aircraft restoration they’ve tackled together, but it won’t be the last. As for the future, “We plan to hang on to the airplane right now and work on our other project—a 1929 Cessna AW,” says Mark. This hardworking couple is enthusiastically looking forward to yet another opportunity to revive early aeronautical history—and no doubt will be sharing it with others who also appreciate the early days of aviation. 



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