

The 'New' Funk

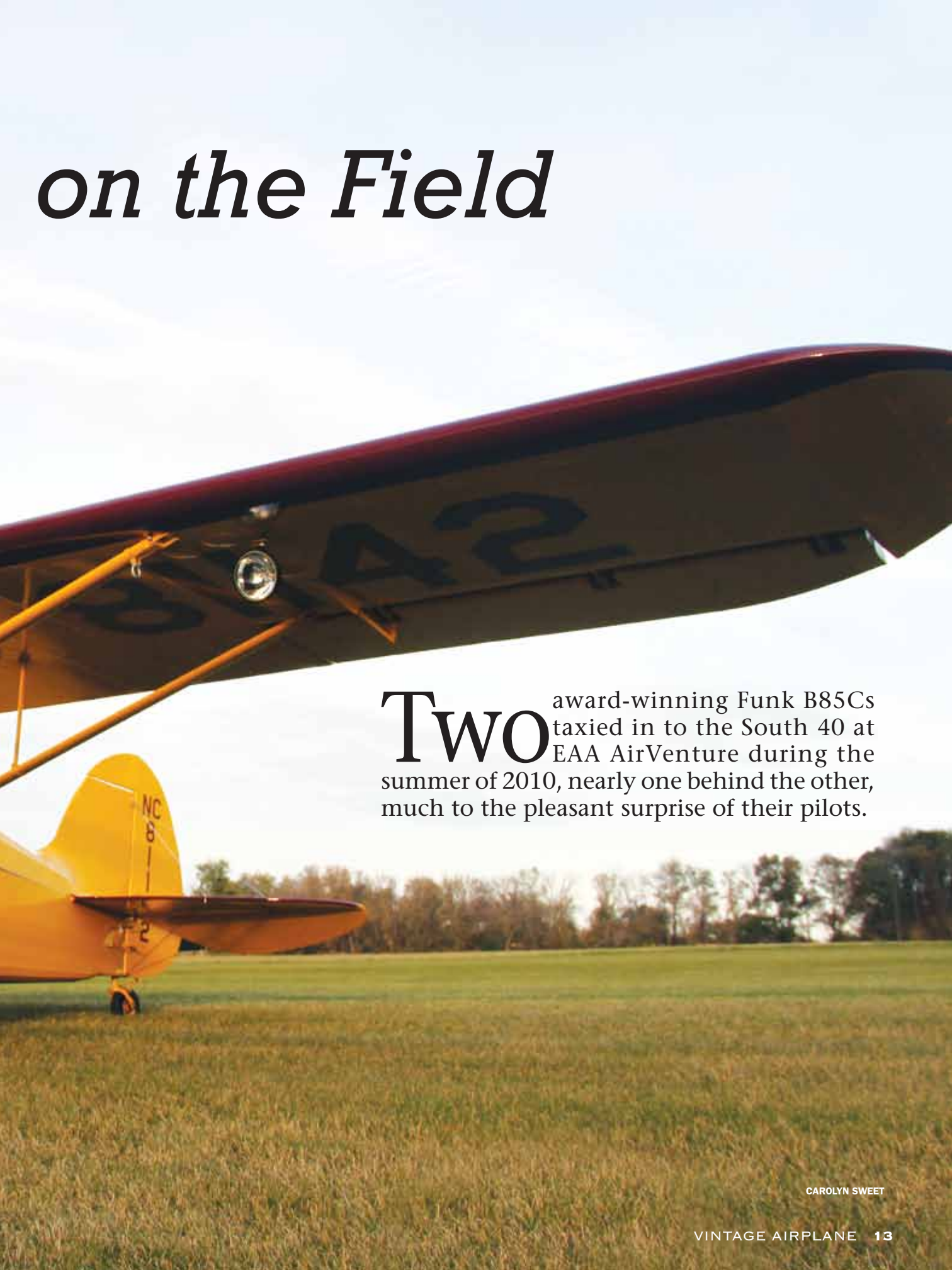
From basket case to Reserve Grand Champion

BY SPARKY BARNES SARGENT



Sean with his Silver Lindy and his newly restored Funk B85C.

on the Field



Two award-winning Funk B85Cs taxied in to the South 40 at EAA AirVenture during the summer of 2010, nearly one behind the other, much to the pleasant surprise of their pilots.

CAROLYN SWEET



This O-200 spins a Sensenich propeller.

SPARKY BARNES SARGENT



They simply aren't used to seeing another Funk when they arrive at an airport, since there aren't a great number flying these days. John Maxfield's 1948 Funk was already part of his family before he was a year old in 1958 (a Vintage article on NC1654N was published in 1995). The "new" Funk on the field belonged to 39-year-old Sean Soare of Loves Park, Illinois. NC81142 (s/n 272) and was manufactured in June 1946 as a B85C model, though Sean installed a 100-hp Continental O-200 while bringing the airplane back to life.

Sean is a third-generation flyer.

His grandfather, Art Soare, taught Sean's father, Malcolm, to fly in a Champ at age 16. Malcolm, in turn, restored a J-3 Cub and then taught his son Sean to fly in the Cub at age 16. Years later, being quite naturally drawn to the vintage and antique airplanes, Sean learned of the basket case Funk while perusing classified ads on the Barnstormers Inc. website. Immediately smitten, he felt that the Funk would be a unique airplane to own, since there aren't too many flying these days. He'd been seeking a project, and this one was located conveniently enough in southern Illinois, just a few hundred miles from his home. "I thought it'd be exciting to restore it," shares Sean, with a friendly smile. "It's my first aircraft restoration and I did it all—with some help and guidance, of course. I grew up around aviation, and my dad also restored a Beech Staggerwing, so I learned a lot just watching him as a kid."

Funk Aircraft

Twin brothers Joe and Howard Funk were natives of Akron, Ohio, and first flexed their aeronautical wings by building gliders in the early 1930s. By the late 1930s, Akron Aircraft Company was formed, and the brothers had designed and built an airplane. It was powered

first by a small Székely radial, then by a modified, inverted Ford Model B automobile engine. Production of the Funk B started in 1939 under ATC 715 and continued into 1940. By the end of the year, the 75-hp Lycoming replaced the Ford engine, and the Funk Model B75L was born. The following year, the brothers moved to Coffeyville, Kansas, where they established Funk Aircraft Company and continued manufacturing the Model B and B75L. Their aircraft production ceased in 1942 due to World War II, but began again in 1946 with the Funk F2B (B85C). Similarly to many other light airplane manufacturers, the post-war declining private aircraft market grounded the Funk brothers' aeronautical endeavors in 1948. All told, it's estimated that fewer than 400 Funks were produced. Post-war company advertising promoted three core features of the Funk B: "Quality, safety, [and] completeness." Powered by the 85-hp Continental, the Funk had a cruising speed of 100 mph, and with 20 gallons of fuel, a range of around 350 miles. "Carefree flight in supreme safety" was promised by virtue of the following: "... no stalls at lower-than-normal flying speeds; landings at speeds as low as 37 mph unaffected by gusty winds; no accidental spins.... On the ground,



SPARKY BARNES SARGENT PHOTOS



The Funk sports a pair of original wheelpants. Sometime in the 1960s the main gear was converted to Cleveland wheels and brakes.

The two-tone instrument panel and the tall control column—in this instance, the right-hand portion of the yoke control has been temporarily removed to allow for passenger comfort.



For ease of entry, the Funk brothers designed the door so it swings wide open—all the way in front of the front wing strut.



Close-up view of the wingtip navigation light.

too, Funk is safe due to its low center of gravity. That means no more runway troubles, for Funk hugs the ground through fast turns and cross-winds."

This docile two-place airplane could take off in 350 feet, had an 800-fpm rate of climb, and touched down softly at 37mph on its 72-inch tread main gear, cushioned by oleo-spring shocks. Visibility was enhanced by a one-piece Lucite® acrylic resin windshield. Advertising verbiage describes the sturdy Funk B as having "standard equipment [including a] starter and generator, illuminated instrument panel and dome light, landing lights, radio, and wheel pants," and

an "exceptionally low noise level in [the] cabin. It's spin and stall resistant, yet maneuverable . . . See it! Fly it! And Compare! Then you'll agree it's one of the safest planes in the air today."

The Funk was constructed as a basic tube-and-fabric airplane, and its steel tube fuselage was faired to a full-bodied shape with wooden formers and stringers. Its wings were built of wood ribs and spars, while the tail section was built of steel tubing. The B85C measured 20 feet and 1 inch long, with a wingspan of 35 feet. It weighed 890 pounds empty, and had a useful load of 460 pounds. According to aviation historian and author Jo-



The door handle is from a 1936 Ford.

seph Juptner, the deluxe version of the B85C was equipped with hydraulic brakes (as opposed to the standard mechanical brakes), and was called the "Customaire." [*U.S. Civil Aircraft, Vol. 8*]

Tackling the Restoration

Sean, a physician's assistant whose flexible schedule facilitates his aviation activities, realized



CAROLYN SWEET



COURTESY SEAN SOARE

Father and son, working on the fuselage.



COURTESY SEAN SOARE

Sean's parents, Malcolm and Roberta Soare, provided helping hands during the restoration.

when he went to look at NC81142 that it truly was a basket case. It was much like assessing a patient who didn't look or feel well, and who couldn't communicate all the details of his plight. "It was pretty rough," he recalls, shaking his head and chuckling. "It was in pieces, and various critters were living in it. It was just a pretty sad airplane. I got a lot of looks from other drivers as I was going down the highway with it loaded on the trailer."

Fortunately, Sean had a hangar in which to perform his healing work on the Funk. But since this was his first restoration, he had to fully equip himself to handle a wide range of restoration tasks. He also had to determine just what

type of supplies he needed to have on hand to keep the project moving forward—including fabric, coatings, hardware, cables, and wood for stringers and formers. One of the first steps was simply removing the old fabric from the airframe and cleaning and inspecting it. "I picked two large garbage bags of critter stuff out of the wings; it was amazing," explains Sean. "Then I took it all the way down to the bare tubing. I put epoxy primer on the steel components, rebuilt all the wood parts, and made new aluminum leading edges for the wings. So essentially, it's an all-new airplane.

Another important aspect of the project was devoting time to researching Funk history and exam-

ining copies of factory drawings, as well as talking with knowledgeable individuals. Overall, Sean compares the restoration process to building a large model airplane. "It's a little bit more involved than a model, so I just tackled one thing at a time. Over the course of three and a half years, it slowly came together. I tried to make the airplane as original as possible—but I found out that there was a lot of variation that the Funk brothers did with the aircraft coming out of the factory. They were very resourceful and bought a lot of inexpensive surplus items after the war—like the federal yellow paint, which was used on a lot of trainers during the war."

When it came time to do the in-



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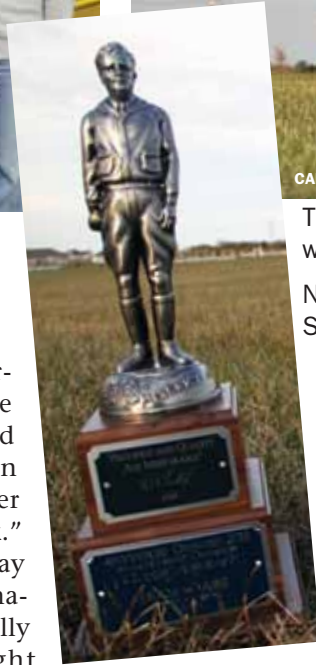
Malcolm and Roberta Soare with their son, Sean, and his finished Funk.



CAROLYN SWEET PHOTOS

The late-day October sun lends a golden aura to this award-winning Funk.

NC81142 received the Classic Reserve Grand Champion-Silver Lindy during AirVenture 2010.



terior, Sean says that “Lorraine Morris of Poplar Grove [Illinois] helped me, and Bob Riffle was a big help in making the wool headliner and canvas seat hammock.” They decided upon soft gray upholstery, accented by maroon piping, which tastefully coordinates with the light gray control column, rudder pedals, and two-toned instrument panel.

In the original instrument panel, there was an opening that puzzled Sean, and after some detective work, he discovered it was for an early-style radio receiver. Since he didn’t have the original unit, he fabricated the new panel minus that opening. A neatly varnished plywood floor has two polished stainless-steel scuff plates in front of the rudder pedals. A new skylight, windshield, and sliding windows completed the cabin area.

After covering the airframe with Ceconite fabric, Sean quickly mastered the tedious skill of rib stitching. Then it was time to learn the art of successfully applying Randolph butyrate dope with a compressed air system, and hand rubbing it to a luminous sheen. Sean says he decided to install an O-200 in his Funk, “because 85-horse engines are harder to find parts for now. There’s a pull starter on the left-hand side of the instrument panel.”

The project came without a set

a broad smile. “Shawn Miller, the gentleman that helped me with the cowling, had picked up an original set of wheelpants a couple of years ago at an auction. They had never been repainted, so they had the original paint on them. I used those same colors—maroon and yellow—for the airplane.”

Funk Features

The Funk has several unique features, with perhaps the most striking one being its parallel wing struts, which provide unimpeded entry into the cabin for both pilot and passenger. Once ensconced in the cabin, occupants can’t help but notice the tall control column with a two-piece bar running across its top, to which the yokes are affixed. “The control yokes are reminiscent of old-style airliner yokes,” smiles Sean. “I temporarily removed one portion of it, just to make it more comfortable for my friend to fit in the right seat.”

This Funk is equipped not only with navigation lights, but also

of wheelpants, and Sean didn’t know where to find any. As it turns out, they nearly fell into his lap. “I really lucked out on the wheelpants,” he explains with

with a set of distinctive landing lights. Instead of being permanently mounted, these non-retractable units are plugged in to built-in “sockets” underneath each wing. “They look like Model T headlights hanging down below the wing,” chuckles Sean, “and it’s amazing that they actually stay there—they really create a lot of drag.”

The Funk was equipped with a full-swivel tail wheel, which could be steered with the rudder when secured by its manually operated locking device. “The tail wheel locks directly to the rudder, and you can unlock it to move the airplane around. The only thing I would say, though, is that you can’t make sharp turns if it’s locked,” laughs Sean, elaborating, “so if you’re taxiing the airplane to a tight spot on the ramp, you have to physically get out of the cabin and go back and unhook the tail wheel.”

Funk Flying

In 1947, a Funk Aircraft Co. ad jauntily proclaimed, “There’s fun in your future with the Funk F2B!” Whoever penned those words had no way of peering beyond the horizon of the 1940s into the far-distant future to predict the longevity of fun Funk flying. But those pilots who are fortunate enough to fly a Funk today still agree with that advertising slogan.



Rear view of the Funk in the South 40 at AirVenture—note the other Funk to the left.

"It takes off about 55 mph, cruises pretty fast around 110 mph, and it's just a nice cross-country airplane," says Sean. "It really won't stall; it sort of mushes and you can still do nice gradual turns with it. It's very forgiving. My flight to Oshkosh was exciting. I've been here three times but this was the first time I've ever flown here. So I had a friend come up with me that helped me out a little bit. Interestingly enough, when I showed up there was another Funk two airplanes ahead of me—I had no idea another Funk would be here! That's really unusual to have two together."

Budd Davisson, contributor to this magazine, relished the opportunity to fly a Funk back in 1990. In his pilot report, his final assessment of the airplane was this: "From a performance view, the Funk is a good, good flying airplane that will make its pilots into extremely good, well-coordinated, sensitive aviators. In that regard, the Funk makes a tremendously good training airplane and one I would highly recommend for anyone expecting to transition into something with higher-demand handling characteristics."

Rewards and Awards

NC81142 came with a historical treasure, of sorts. Its logbooks and paperwork are complete, all the way back to Howard Funk's sig-

nature in the aircraft records. After the airplane left the factory in Coffeyville, Kansas, it spent most of its life in California. "A friend of mine in Poplar Grove, who also has a Funk, was over in the hangar one day looking at my airplane," recounts Sean, adding, "he was saying it looked familiar, and then he remembered that he had looked at the airplane about 30 years or so ago, sitting on a ramp in California. He almost bought it then. I think it just sat for 25 years or more, and became a derelict."

But a derelict it is no longer. This Funk B75C has been reborn into a frequent flyer. "Every evening, I try to get out to the Poplar Grove airport—it has nice grass runways and it's really fun out there, because a lot of vintage airplanes are based there. The last three and a half years, I was sitting on the ground, working on a project, while everybody else was flying. Now I have an airplane to fly—and it's a neat airplane," Sean says with a glow.

Sean experienced several rewarding aspects of tackling his first-time restoration. One was simply the joy associated with identifying and finishing the myriad tasks of healing a long-wounded airplane. Another was embracing the help provided by numerous individuals as he met each new challenge. "My local friends, Ted Steffens and Don-

nie Stine, as well as members of the Funk Aircraft Owners Association, helped me out a lot," reflects Sean, "and Gerry Lewis of Delaware has the original factory drawings. He really helped me by donating a lot of parts to the project."

Overall, Sean's favorite part of the process, he shares, was the fabric work. "I really enjoyed applying it to the whole airframe, and seeing what were once just separate parts and pieces coming together to start looking like an airplane again. I never realized the finished product would turn out so nicely!"

Indeed, Sean's completed Funk is certainly exceptional, and he has an AirVenture trophy to mark his success: the Classic (September 1945–1955) Reserve Grand Champion—Silver Lindy. By mid-October, Sean had logged 54 hours on his Funk since its first flight in May of 2010, and everywhere he's flown NC81142, he's been richly rewarded for his hard work by nice comments from admirers.

If you're wondering what this young man may be doing next (aside from being a Funk frequent flyer), well, he's already working on his second restoration project. "As if I didn't abuse myself enough working on the Funk," he says with a grin. "I bought a 1937 Cabin Waco YKS, and I already have the fuselage ready for fabric!"