



Reliant, revived

*A handsome
gull-wing Stinson's
rise from the ashes*

BY THOMAS A. HORNE

Jim Reeves of Tucumcari, New Mexico, had restored old airplanes before—a Champ, a Great Lakes, a Cessna 140 among them. But by 1994, he decided that he was ready to take on what he felt was one of the prettiest airplanes ever built: a Stinson Reliant. With its graceful curves and tapers—and its distinctive gull wing—these big radial-engine Stinsons ruled in the 1930s at the apex of the art-deco genre of general aviation airplanes. (Fairchild enthusiasts would argue that their airplanes held high ground then, as well, especially considering the Fairchild's similar size and gull-wing design.) Impressively big, beamy, comfortable, and oozing with style and presence, the Reliant line had its production run from 1933 to 1939, and five basic versions of the airplane were built. During World War II, some 500 Reliants were drafted into service as advanced trainers under the V-77 type designator.

PHOTOGRAPHY BY MIKE FIZER



Reeves focused on a 1937 SR-9C model. Word has it that about 200 of these 300-horsepower Lycoming-powered Reliants were built. Only 20 or so are left today, and most aren't in flying condition.

Reeves' SR-9C certainly wasn't flying when he bought it. "It was all in boxes, a real basket case," he said. "But it wouldn't be the biggest project I tackled. That would have been the Great Lakes, which I built from scratch." Reeves mulled over the asking price of \$31,000, then agreed to pay it—if the seller provided either an overhauled propeller, or delivered the boxes from their roost in Normangee, Texas, to Tucumcari. A large van full of boxes was driven to

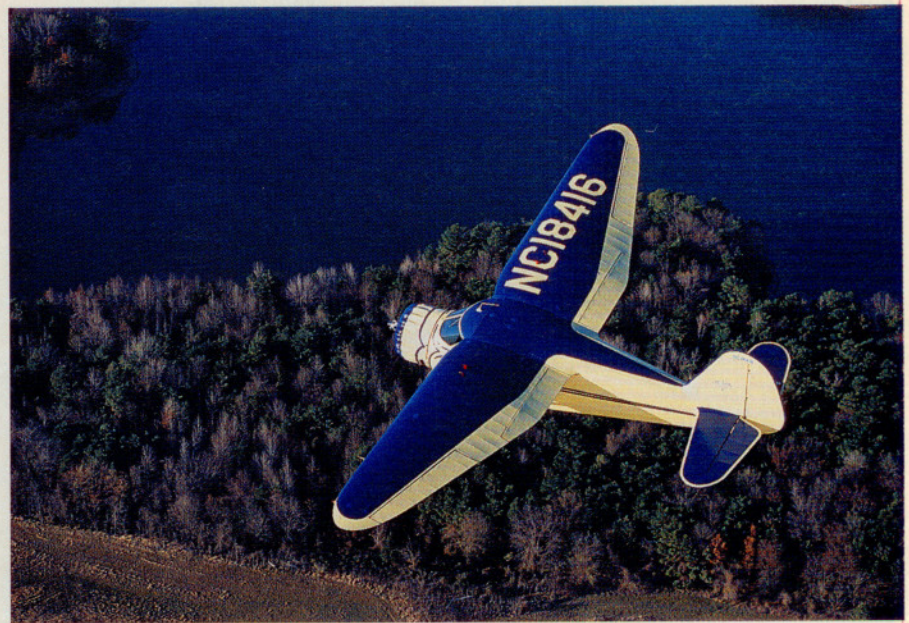
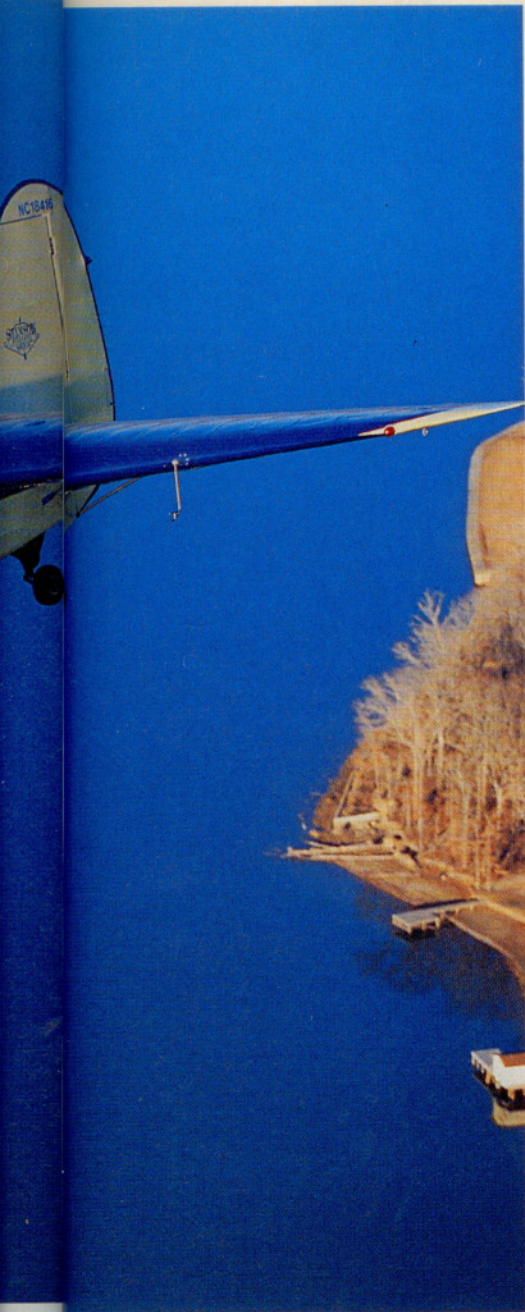
Tucumcari in August 1994.

Reeves worked on the Stinson in an abandoned Chevrolet garage for the next five years. Reeves guessed that he spent \$65,000 on the project, not counting the \$4,200 he paid for a replacement Lycoming R-680-13 engine. First came the repairing, cleaning, and painting of all the SR-9's tubing and other metal parts. Then the instrument panel, wheel, brake, and interior work began. This included new window channels, the wooden window, door, and headliner frames, plus the wooden doors. "The wooden parts I bought were of no value except as patterns," said Reeves. "So there was going to be a lot of woodwork required. The doors are

complicated due to the roll-up windows. Originally only one door had the roll-up window, but [I figured that as long as I was] going to make the doors, I might as well put the roll-up feature in each door."

Like much of the rest of the restoration, this wouldn't be easy. Early Stinsons were built in Detroit (all pre-Reliant Stinsons were called *Detroiters*), then in Wayne, Michigan, and a lot of car parts were used in the Reliants. Reeves scoured antique auto parts catalogs to find the correct Ford door handles and window cranks.

By 1997, the fuel lines were plumbed; the firewall, oil tank, and engine mounts were finished; and all instruments were installed. The elec-



trical system was also rewired and refused, and a new battery mount fabricated. The following year the windshields and side windows were completed. Then the engine—along with its newly remanufactured propeller—was installed.

Then came the bear. The Reliant cowl has 18 curvaceous bumps that cover the rocker arms of the Lycoming's nine-cylinder engine. Each of those bumps is a separate part, and all of the cowl parts that Reeves bought were beyond repair. He had to make them from scratch. Reeves had been an airframe and powerplant mechanic and authorized inspector for years, but this job would have taxed the patience of even the most

experienced aircraft restorers—of which Reeves was certainly one.

That meant making concrete female molds and beating each aluminum piece into shape. It took weeks to bang the cowl into shape, then weeks more to tap out the low spots, file them, fill them, and finish them up. Total time to make and install the new cowl: seven months.

After more months of repairing rotten and corroded wing and tail parts, the Reliant's components were taken out to Conchas State Park Airport in Conchas Dam, New Mexico. There, the airplane was assembled.

The whole time he worked on the airplane, Reeves figured he'd keep it and fly it as the pride of his fleet. But

a diagnosis of cancer changed all that. Now semiretired, working as a school bus driver and living off a modest inheritance, Reeves made the tough decision to sell his newly rebuilt SR-9C.

A Pittsburg, Texas, dentist, Larry Richardson, learned about Reeves' Reliant on *Trade-A-Plane's* Web site. He knew it would be snapped up quickly, so he moved fast. He offered Reeves \$80,000—a real steal—for the airplane, then went to Tucumcari to convince what seemed like a reluctant Reeves to part with his near-perfect restoration.

It took a few days, but Reeves finally sold in October 1999. After letting Reeves have a few emotional turns at



the wheel (control yokes in Detroiters and Reliants really are shaped like automobile steering wheels), Richardson flew his new Reliant back to the Mount Pleasant, Texas, airport—his home field.

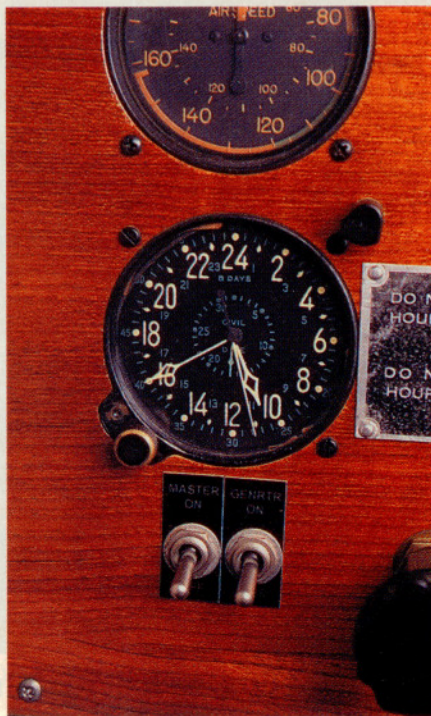
Richardson is a busy pilot, having earned his private certificate just four years ago. At this writing, he's logged more than 250 hours in an L-19 he co-owns and about 800 hours in his 1973 Beech B55 Baron. But the quality of all that time pales in significance to the 50-plus hours he's flown his Reliant. Just ask him.

"It's solid, graceful, carries five people in comfort, and lands great," Richardson crows. "Believe me, I learned in a J-3 Cub, and when you wheel a Stinson on, it sticks [to the ground]." Richardson flies strictly for pleasure in his SR-9C and readily gives rides to the curious.

Early this year, three more of the curious—yours truly, photographer Mike Fizer, and his father, Bob Fizer—arrived at Mount Pleasant. It was our chance to step back to the 1930s, sample this scarce classic, and record it for these pages.

Right up front, let's address the 1930s' idiosyncrasies. Back then, people were smaller and airplanes were bigger. The Reliant stands so tall that a few of today's NBA players could easily fit under the wing. Couple that with its girth and extravagant lines and you've got an airplane that looks a lot heavier than its published standard empty weight of 2,457 pounds.

It's a big stretch up to the chromed steps that lead to the aft cabin, and



once inside you have to thread your way—uphill—between the front seats in order to wriggle your way into the cockpit. Once ensconced, several curiosities await.

There's the roll-down windows, naturally, but there's also an overhead pitch-trim crank—a design feature common to both Stinsons and Pipers, and which endured until the 1970s.

The first thing you'll notice are the round wooden control yokes. Then you'll see what looks like a foot switch of the type used in pre-1970s automobiles for dimming the headlights. But it's not a dimming switch—it's the starter switch! Turn on the paddle-



shape magneto switch, step on the "dimmer," wait for a few turns of the propeller, hit the spark boost switch, and the Stinson lights off with a "chuff, chuff, chuff" sound that round-engine lovers crave.

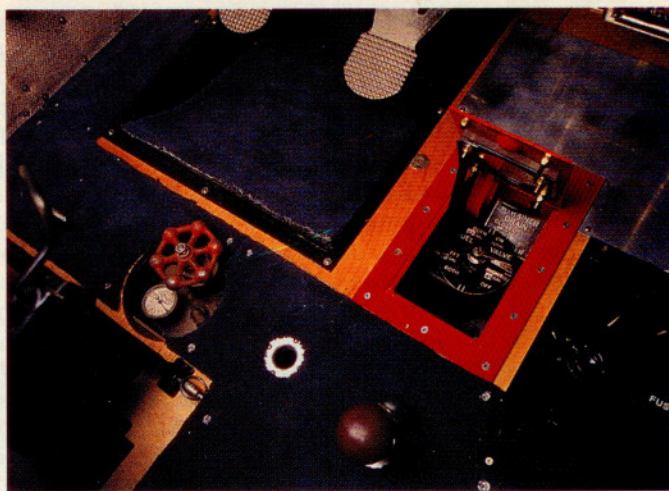
Did a start go bad, and a backfire ignite raw fuel after one of those "chuffs"? Well, then it's time to hit the fire extinguisher. To turn it on, reach down between your legs and grab what looks for all the world like the knob of a household water cutoff valve. Turn the knob, and the engine is doused with an extinguishing agent.

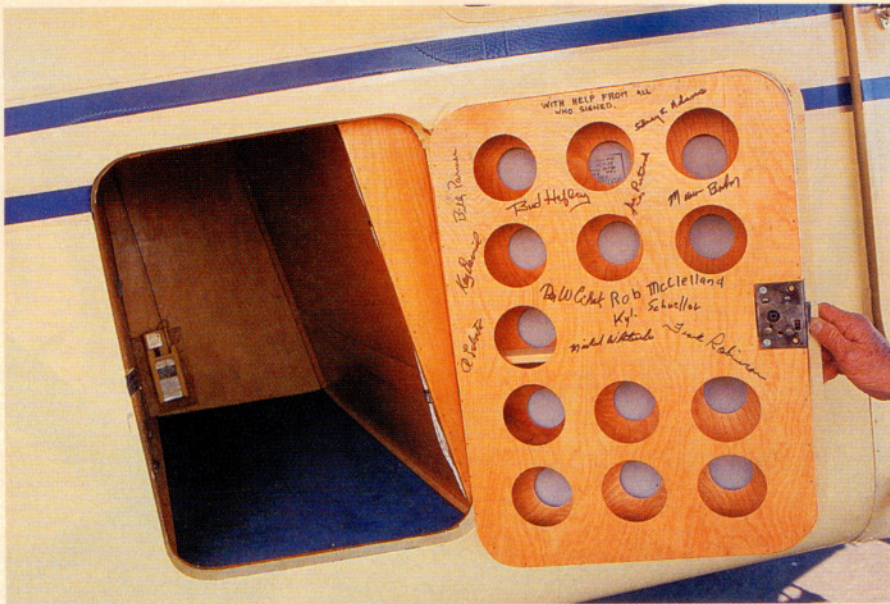
Reliants are fitted out with pneumatically activated flaps powered by a vacu-



um pump. The operating principle is the same as that used in the windshield-wiper systems of older automobiles, and has some of the same drawbacks. There's plenty of vacuum when the engine's at higher power settings, but throttle back—or have a leaky system—and the flaps may not extend all the way to the Down position (there are only two positions—Up and Down). Remember how the car's wipers would speed up when climbing a hill, but slow way down when coasting down the back side of the hill? No? Well, ah, OK, just take it from me. (I'm not as old as the Reliant, but I did once own a 1953 Chevrolet.)

The Reliant's cabin is high, wide, and comfy. Period touches such as the roll-down windows, round wooden yokes, and wind-up chronometer take you right back to the 1930s. A spigot valve behind the rudder pedals operates an engine fire extinguisher. The brown knob to its right regulates cabin heat.





There's a lot of woodwork in a Reliant, and most of this airplane's was rotten when Jim Reeves began his rebuilding project. He had helpers, though, and they all signed the baggage door.

Taxiing the Reliant can be a chore for the uninitiated, because you can't see very well over the cowl, and the airplane uses heel brakes. Richardson tip-toes to the runway, stabbing a brake now and then to position the airplane on the active runway.

Firewall the throttle, and the Reliant's tail can be lifted at around 65 mph. As I recall, liftoff occurred at about 80 mph, and the noise level wasn't as bad as I'd expected from a 300-hp nine-banger. Cimbout airspeed was 90 mph. The whole takeoff impression foreshadowed the airplane's later behavior in flight: slow, graceful, stable, and a tad ponderous.

The SR-9C has an 82-gallon fuel capacity, with 70 of those gallons usable. Richardson says his 75-percent power cruise speed is 132 mph, with a fuel burn of about 16 to 17 gallons per hour. Advertisements and what passed for flight manuals in those days list this Reliant's maximum range as 615 statute miles. I suspect that would be at a power setting somewhat less than 75 percent, and that the range figure is a tanks-dry number, meaning no reserve fuel.

Comfort and solidity are other strong flying impressions. You have this feeling of mass all around you. The airplane rides turbulence with style, and if you wheel it into a turn in calm air, well, the Reliant just stays put. Richardson and I both agreed that the airplane flew best when we simply left it alone. As for the massive back seat, it's like sitting in a huge high-backed sofa—cushy, yet firm,

and topped by some ergonomically friendly, integral headrests.

The SR-9 stays put, all right—after trimming it up, that is. After leveling off, it took awhile to get the hang of the overhead trim crank. Let's see, counterclockwise, and it's nose-up trim—oops, no, that's not right. OK, back the other way. Yeah, that's better. Reduce the power, and it's the guessing game all over again. The Reliant seems to naturally fly a bit nose-heavy, so trim control becomes a little more important during descents, lest you end up with too much airspeed. It's no problem for Richardson, though, who learned the nuances of his Reliant a long time ago.

He dials back the power, drops to pattern altitude for a landing at Mount Pleasant, then trims for an approach speed of 90 mph. Down come the flaps on short final, and Richardson wheels it on at around 70 mph. His feet do their dance as the tail drops to the runway and he steers the Reliant to a stop. The manual says that the Reliant's ground roll is a mere 250 feet with the flaps deployed, but Richardson is too kind to the airplane to make the sort of carrier landing that this boastful distance must surely require. Better to roll it on and maintain good control than go for a maximum-performance landing.

The day ends with Richardson's hangar buddies, the Fizers, and me clustered around a hangar full of classic airplanes. It was airplane talk for hours, primed and stoked by the Reliant's inescapable aura. And

by Reeves' labors, both directly and indirectly.

Mention the Stinson name, and most pilots will think of the smaller postwar models—the 108s or the Station Wagons. But by the late 1940s, Stinson was thinking small, literally and figuratively, and the company's fortunes were dwindling. By 1948, Piper absorbed Stinson, and design work was begun on a tube-and-fabric twin that was first called the Twin Stinson—and ultimately renamed the Piper Apache.

All that's left of the Stinson glory days are a few precious examples of Detroiters and Reliants like Richardson's. And gull-wing fanatics like Reeves, who keep them and their spirit alive. □

i Links to additional information on the Stinson may be found on AOPA Online (www.aopa.org/pilot/links.shtml). E-mail the author at tom.horne@aopa.org

1937 Stinson Reliant, Model SR-9C

Price new: \$7,985

Specifications

Powerplant	Lycoming R-680-13, 300-hp, 9-cylinder radial
Propeller	Hamilton Standard; constant-speed; 2-blade; 8-ft, 6-in dia
Length	27 ft 8 in
Height	9 ft 2 in
Wingspan	41 ft 10 in
Wing area	256.5 sq ft
Wing loading	14.61 lb/sq ft
Power loading	12.5 lb/hp
Seats	5
Empty weight	2,457 lb
Maximum gross weight	3,750 lb
Useful load	1,243 lb
Payload w/full fuel	823 lb
Fuel capacity, std	82 gal (70 gal usable)
Oil capacity	5 gal
Baggage capacity	100 lb

Performance

Takeoff distance, ground roll	1,750 ft
Rate of climb, sea level	800 fpm
Cruise speed/endurance w/45-min rsv, std fuel (fuel consumption)	
@ 75% power, best economy	125 mph/4 hr
7,500 ft	(17 gph)
Service ceiling	19,000 ft
Landing distance over 50-ft obstacle	1,550 ft
Landing distance with flaps, ground roll	250 ft

Limiting and Recommended Airspeeds

V _Y (best rate of climb)	90 mph
V _{NE} (never exceed)	220 mph
V _{S1} (stall, clean)	60 mph
V _{SO} (stall, in landing configuration)	54 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.