

AOPA

The Debonair Sweepstakes

Debonair on deck

The Debonair sweepstakes airplane, all prepped for its new life

I KNOW I'VE SAID THIS for each of the four sweepstakes restoration airplanes I've overseen, but I'll say it again anyway: The Debonair Sweepstakes airplane has been the most ambitious project yet. What began as a forlorn, way-underused 50-year-old Debonair at Connecticut's Hartford-Brainerd Airport has morphed into a one-of-a-kind classic. It has been fitted out with nearly every upgrade available for the airplane, and virtually every element of the airplane has been inspected and upgraded to the max. And to think that without the AOPA sweepstakes program's intervention, the airplane would surely be on the fast track to the boneyard.

BY THOMAS A. HORNE
PHOTOGRAPHY BY CHRIS ROSE



VIDEO EXTRA

Fly along with Tom Horne in the Debonair.



First of all, a great big thanks to all the generous contributors to the Debonair's revival (page 56). Without them the project simply couldn't have been completed. It was a two-year project, and we needed every bit of that time to do the job.

There are lessons here for anyone thinking of modernizing an older airplane. For one, don't go into such a project thinking you'll save money. Our budget for the Debonair was \$250,000. Those funds were used to buy the airplane (\$55,000) as well as pay for the travel expenses associated with the many trips for each stage of the four major work packages (windshield/windows/tip tanks; panel upgrade; interior; and paint), plus all the shows (two Sun 'n Funs, two EAA AirVentures, and AOPA's regional fly-ins), plus the fuel the Debonair burned in the process. It also was used to pay for any discounted parts, plus any labor charges incurred in the restoration.

But the full, retail cost of the restoration would be more like \$350,000, counting labor—most of it associated with the rework of the instrument panel. That's why we rely on those contributions and discounts.

FLYING THROUGH THE STAGES

The best part of managing any restoration is experiencing the improvements firsthand, in flight. When I first flew the airplane from Hartford, the windshield was practically opaque with scratches and discoloration. More troubling, the airplane wasn't making book performance—even though the engine had a major overhaul just five years and fewer than 200 hours earlier. But the world—and the airplane—looked better after I flew the airplane to Buffalo, Minnesota, and had D'Shannon Aviation install new windows. And the airplane's range went way up with the installation of D'Shannon's 20-gallon tip tanks.

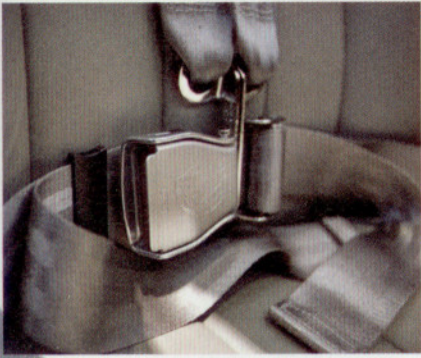
The next step was to have been AOPA's Summit 2012 in Palm Springs, California. But the airplane wasn't happy at the Southwest's high density altitudes. The airplane was talking to me. So the trip ended at Albuquerque, where Pat Horgan of Santa Fe Aero Services picked it up for its instrument panel overhaul. That process took five months, but the next trip—to Sun 'n Fun 2013—was a wonderful new experience. Gone was the old panel, replaced by a full suite of the latest and greatest



THE DEBONAIR'S PANEL

features Aspen's three-screen Evolution 2500 display system, an iPad mini running information from Garmin's Pilot app and GDL 39 3D, and Garmin GTN 750 and GTN 650 GPS nav/coms. Beneath the Aspen display is Electronics International's MVP-50P engine analyzer and systems monitor, which is coupled to the master warning and master caution lights between the iPad and the GTN 750. Above the GTN 750 is the PS Engineering PMA-8000BT and Bluetooth audio panel. Panel design and installation were done by Santa Fe Aero Services. The sweepstakes logo was embroidered into the front headrests by Air Mod (above). B.A.S. four-point restraint harness (facing page, top left); panel cubby hole holding the Debonair's pilot operating handbook (facing page top center); and the ergonomically correct rear seats (facing page, top right).





avionics, headed up by a three-screen Aspen Evolution suite, plus Garmin's GTN 750 and GTN 650 GPS/nav/coms. There's also a panel-mounted iPad mini that runs ADS-B and navigation information via the Garmin Pilot app; a PS Engineering PMA 8000 Bluetooth audio panel; and an Alpha Systems angle-of-attack indicator. And RC Allen's standby attitude indicator. And CO Guardian's CO monitor/clock. You get the idea. It's an all-electric panel, powered by National AirParts' new 70-amp alternator—and the Aspens' internal backup batteries for good measure. Suddenly, I didn't need my Garmin aera 560 portable GPS as my primary navigator!

That took care of the technological leap forward for the Debonair. With Air Mod's interior renovation came a whole new world of comfort and overall ergonomic improvement. Before the stop at Air Mod I was basically sitting on bare metal when I

flew. The old seats' foam padding had dry-rotted! Now I had lumbar support, as well as a four-point safety harness and numerous storage spaces and creature comforts that made flying the Debonair an even more pleasurable experience.

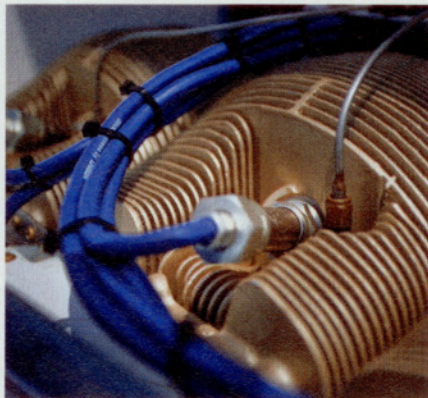
But then came the engine issue. Even though the original, 225-horsepower Continental IO-470-LCK had been overhauled, the airplane sat for so long that its cylinders became rusted and pitted. This showed up in oil analyses as iron particles. After long debate, it was decided that another major overhaul was in order, one that would boost engine power to 260 horsepower. D'Shannon's newly formed engine shop, Genesis Engines by D'Shannon, stepped forward and did the job. And we're glad they did. Maximum cruise true airspeeds went from the previous 152 knots to a new high of 170 knots, and climb performance went up as well.

THE 20-GALLON D'Shannon tip tanks (below top left); new ECI cylinders (center); the Debonair's cowling, secured by Dzus fasteners (below top right); and overhauled and converted 260-horsepower IO-470 engine by Genesis Engines by D'Shannon (bottom).

The paint job rounds out the improvements. First came the base coat, applied by KD Aviation's shop at Stewart International Airport in Newburgh, New York. After its application, there wasn't enough time to apply the striping before EAA AirVenture 2013, so we had to come up with an interim design. Scheme Designers' Craig Barnett came up with the idea of placing temporary decals containing factoids and humorous commentary on the airplane and its birth era. Most recently, the decals were removed and replaced by the permanent paint treatment. A principal element in the striping—the arrowhead shapes on the fuselage and tail—are a nod to the original factory paint schemes used on 1963 Debonairs.

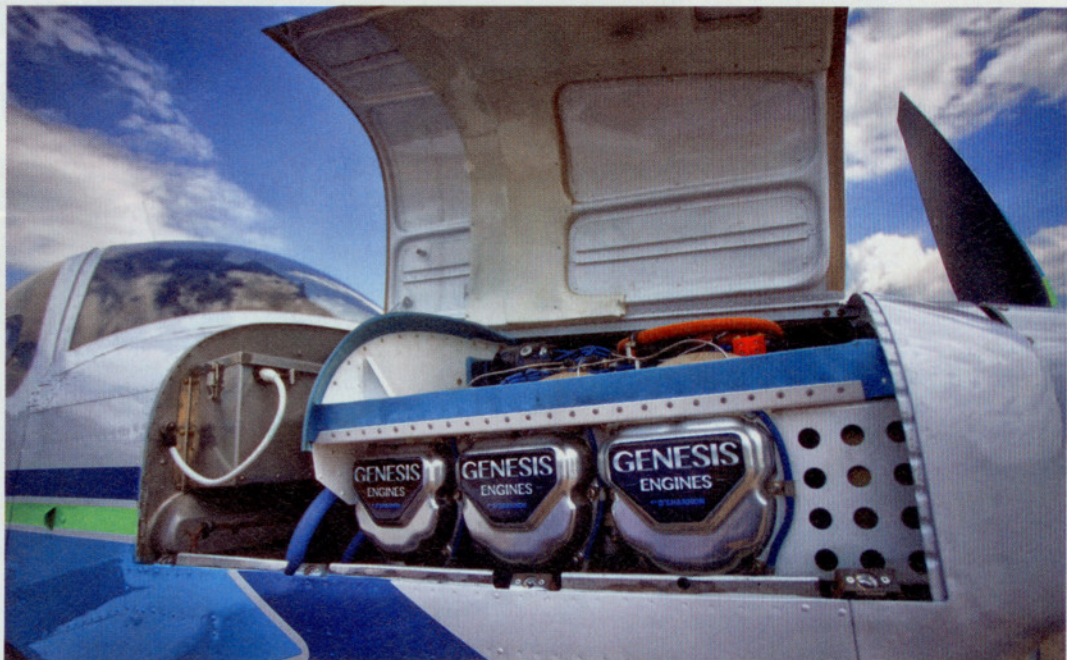
READY FOR YOUR CHECKOUT?

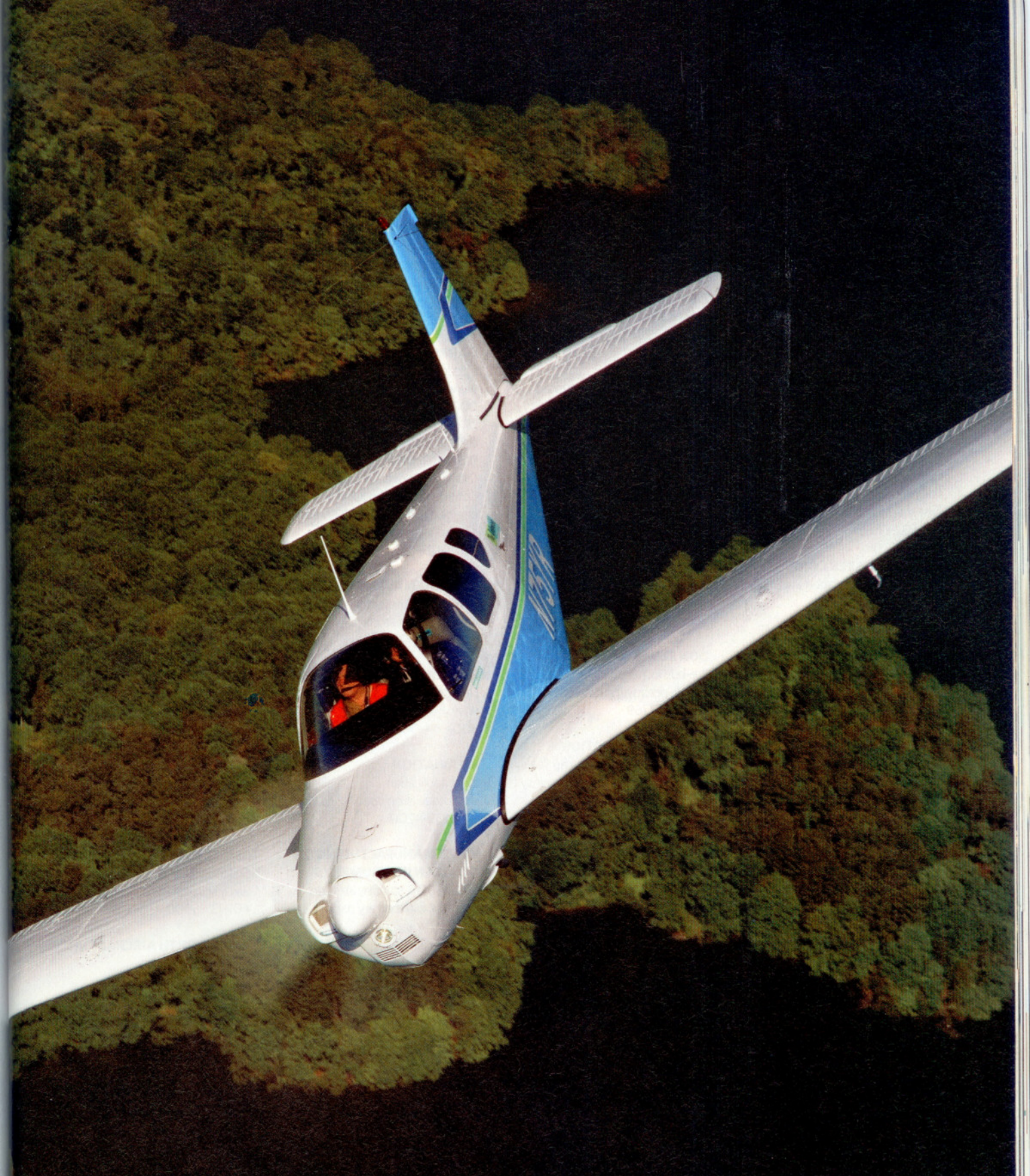
The sweepstakes ends on July 31, and



FOR MORE

Visit the AOPA Debonair Sweepstakes blog for the latest updates and more information on how to win this aircraft (http://blog.aopa.org/sweepstakes_logbook).





LAST CHANCE!

Join or renew your AOPA membership today. Sweepstakes ends July 31, 2014.

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you, lucky winner, will end up being the beneficiary of this effort. You'll see 170-knot true airspeeds at low altitude and high power settings, as well as 1,000-nautical-mile still-air ranges at long-range power. You can carry three to four passengers and their bags in great comfort on trips of 500-nm or so, or fly yourself and a svelte sidekick on seven-hour, nonstop continent-leaping legs. With the Aspen and Garmin information you'll have situational awareness galore,

including ADS-B traffic and weather, plus you can set up the panel to show as many as five moving maps at once.

And yes, it's easy to fly, and has few traps for the unwary. The landing gear and flap switches are on the right and left sides of the panel—just the opposite of what most pilots might expect. Another potential gotcha is the low (106-knot) flap extension speed. In order to slow down for landing you must first extend the landing gear, which can be lowered at airspeeds up to 144 knots. As for

target airspeeds, it's rotate at 68 knots, climb at 90 to 100 knots, fly final at 85 to 90 knots and cross the threshold at 70 knots. Simple.

So after two years of careful restoration, the time now draws very near. Soon, a winner will be chosen and the Debonair will fly off into its new life. I'll be there to show you the ropes when you get the keys. But I'll hand them over reluctantly. Maybe I can have visiting privileges?

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