

PILOT PROFILE AOPA
The Debonair
 Sweepstakes

Debonair flight log

A sweepstakes familiarization flight

BY THOMAS A. HORNE

I'M OFTEN ASKED WHAT IT'S LIKE to fly the 1963 Debonair, now that its new avionics and interior are installed. I've put about 62 hours on it as of late November 2013, and it's been quite an experience. The early hours were challenging with a windshield that was practically opaque with scratches when flying up-sun, uncomfortable seats, and avionics that mostly didn't work well at all. Its one working VOR receiver would allow you to navigate—as long as you were close enough to the station that you could see it! I used my Garmin aera 560 handheld, perched atop the glareshield.

The original airplane's 55-ampere alternator, weak battery, and leaky induction airbox caused problems on the fourth and sixth legs I flew it. On my way to AOPA Summit 2012 in Palm Springs, I made a stop at Wichita's Colonel James Jabara Airport to get fuel and pick up Senior Photographer Mike Fizer. After takeoff the landing gear wouldn't retract, although the system tried so hard that it popped the landing gear circuit breaker (the Debonair has an all-electric landing gear system). So it was back to Jabara for a gear cycling test (of course it worked perfectly on jacks), and topping off the battery's charge.

On the leg from Wichita to Tucumcari it became apparent that the airplane wasn't performing according to the numbers published in the pilot's operating handbook. The climb out of Tucumcari (temperature: 85 degrees Fahrenheit; elevation: 4,047 feet; density altitude: about 7,800 feet) at V_y yielded a 100- to 200-fpm climb rate. It should have been more like 400 fpm. Now I doubted if the airplane would get to a safe cruising altitude without exceeding the oil temperature redline. Step-climbs got us to 10,000 feet, but darkness was setting in as we approached Albuquerque, and I had a bad feeling. We were cruising 10 to 15 knots slower than book. The aircraft was obviously not very happy at all in high density altitudes. The gear hadn't retracted back at Wichita. Would they extend when next called on? And now darkness had fallen, and I'd promised myself I wouldn't fly the airplane at night until the panel had been upgraded.

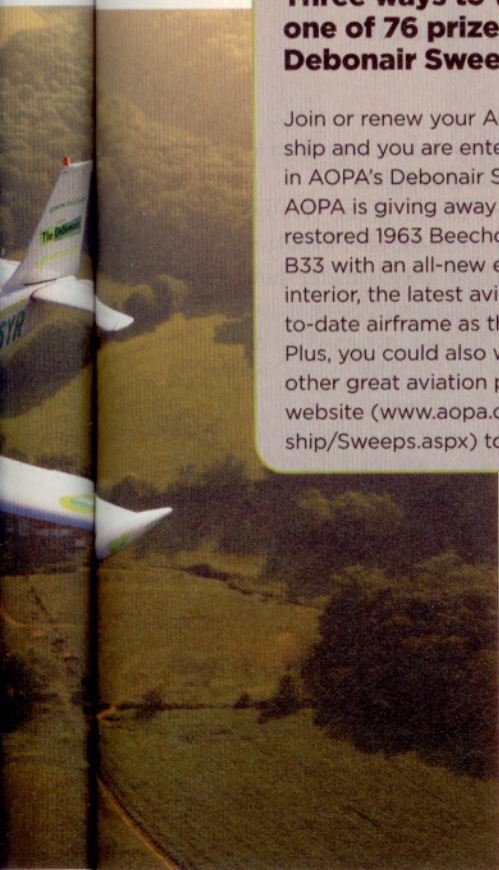
Well, the landing at Albuquerque International Sunport was uneventful, and the no-go call for the leg to Palm Springs was easy to make. Besides, Santa Fe Aero Services was nearby. I left the airplane there for its many avionics upgrades and an annual inspection, and went on to Palm Springs on the airlines.

Of course, after getting the new panel installed at Santa Fe Aero Services it suddenly was sensory overload! I went from a sick panel to one with multiple screens and multiple navigation sources, as well as many new features that made subsequent legs that were as information-rich as could be expected. Yes, there was a learning curve when it came to flying with the Aspen Evolution displays and the Garmin GTN 750 and GTN 650 radio stack, but no such curve at all when it came to using the panel-mounted iPad Mini—complete with its own source of traffic information via the Garmin GDL 39 GPS/ADS-B-In receiver. Now there are six different moving maps in the airplane, two different sources of weather information (XM WX and FIS-B), and two different sources of traffic information (the GDL 39 on the Mini and TIS-B data). This level of equipment certainly boosts confidence—and so did the new 70-ampere



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quantity, or an alternator failure—your attention is drawn to the red and amber lights mounted next to the GTN 750's bezel. It's right in your field of view, so a warning is hard to miss.

A lot of pilots have asked me about the 20-gallon-per-side tip tanks. If they're full, is handling an issue? In cruise, no problem in my experience. I just make sure to transfer fuel equally so that there's not too much of a fuel imbalance. Takeoffs and landings, however, can be challenging in crosswinds. With full tip tanks and a stiff, direct crosswind, full aileron deflection is an absolute must if you want to stay on the runway centerline. You can really feel the extra weight way out there on the tips, and this can make for sluggish aileron response—something I found out on a couple of turbulent takeoffs. If a wing starts to drop, you'll need a lot of muscle, real fast, to get back to wings-level.

As for landings and takeoffs, they're no-sweat affairs. Add full power, take a glance at the MVP-50P to make sure all's well under the cowl, release the brakes (there are no brakes on the co-pilot side, by the way), accelerate, start pulling around 60 knots, rotate at 68 knots, and climb away at the V_y of 90 knots while retracting the gear when there's no runway available for landing. Gear retraction takes about 10 to 12 seconds, which I'm told is normal for a 12-volt Debonair or Bonanza.

In preparation for landing I usually reduce power to 15 or 16 inches of manifold pressure in order to slow to the V_{LO} of 144 knots. When I get there I remind myself: the gear control switch is on the right side, and the flap switch is on the left side. This airplane was built well before the General Aviation Manufacturing Association (GAMA) standardization conventions were adopted industry-wide in 1976, so it has the old-school gear and flap switch locations.

With the gear down, deceleration to a comparatively low V_{FE} of 106 knots takes a few seconds, then you can lower the flaps to half-deflection at the midfield downwind point. (There are no detents, by the way; you simply hold down the flap switch and watch the flap indicator dial for the deflection angle—or take a look out the window—then center the switch to stop flap movement). After that initial flap extension, you typically can reduce power another inch or so, which will get you 90 or so knots by the time you're on base leg. With the runway made you can go to full flaps (a 30-degree deflection), and then reduce power some more until you've got 80 knots or so—depending on the wind conditions. On short final the POH says you can go to 70 knots, but in gusty air you'd want to carry a bit more airspeed, of course. Close the throttle over the numbers, hold a bit of back pressure, and—*chirp!*—you're down in style.

There's plenty more to say about this truly one-of-a-kind airplane; wait until I check you—the winner—out in the Debonair after handing over the keys this fall. See you then!

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FOLLOW Tom Horne's blog (http://blog.aopa.org/sweepstakes_logbook/) for updates on the renovation, as well as related news.

alternator provided by National AirParts, the airbox that Santa Fe Aero Services repaired as part of the annual, and the reconditioned fuel control unit. The engine had new life, good compressions, and it was making book speeds. Yes, there is an issue with cylinder wear and pitting. I know, because of the Aspens and the Electronics International MVP-50P engine and systems analyzer. The MVP is a great multipurpose tool, by the way. To lean for cruise, you use the rotating knob at the unit's lower left. Push it, then rotate to select either rich or lean of peak EGT. Push again, then rotate the knob so that the cylinders' vertical temperature bars are highlighted. Begin leaning, and the first cylinder to reach peak displays a white bar across the top of its EGT column. Then it's a matter of leaning until you observe the proper temperature reduction, which is displayed for each cylinder. I've been running 50 to 100 degrees rich of peak EGT, and at the latter setting true airspeed typically works out to be 150-153 knots at 6,000 to 8,000 feet and OATs around 10 degrees Celsius/50 degrees Fahrenheit.

Another good thing about the MVP-50P is its master warning and caution feature. Should a serious condition crop up—such as, say, low oil or fuel pressure, low fuel