

AOPA
The Debonair
Sweepstakes

PROGRESS REPORT

New panel, strong engine

A new panel gets its first outing

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AVIONICS WORK COMPLETE, it was time to fly to the Sun 'n Fun International Fly-In and Expo at Florida's Lakeland Linder Regional Airport. The nine-hour trip would give me a good introduction to the Debonair's new panel—something I'd had plenty of time to think about as the massive avionics upgrade took place over the airplane's long stay at Santa Fe Aero Services.

A couple of test hops with Pat Horgan, Santa Fe Aero vice president and general manager, gave me an intro to the new panel. That was helpful, but also showed me that the panel could do a lot, lot more than a couple of hours of dual would permit me to learn. Sure, I'd read the operating manuals for each new box, paying special attention to the Aspen Avionics Evolution 2500 displays and Garmin's GTN 750 and GTN 650 GPS/nav/com units, but a nice, long flight would give me the button-pushing and screen-touching experience that would be the foundation for a more complete knowledge of the new "knobology."

We departed Santa Fe as part of a loose three-ship formation. I flew the Debonair solo; Aspen Avionics President John Uczekaj and Aspen sales director Rob Blaha flew Uczekaj's Diamond DA40; and Horgan, wife Emily, and kids flew Santa Fe Aero's company airplane—a North American Navion.

The first of a series of pleasant surprises happened on takeoff from the Santa Fe Municipal Airport. Santa Fe Aero had done some badly needed engine work as part of the annual inspection they performed, and the result was a much stronger engine than the last time I flew it. The fuel control servo unit was replaced, the fuel screen replaced (it was 30-percent blocked by corrosion), the spark plugs replaced, the magnetos retimed, and an exhaust valve was lapped to boost a sagging compression reading. The engine sounded stronger, and had a more macho exhaust note than what I recalled from its earlier life.

In fact, the engine was now making about 20 percent more power than the last time I flew it in October 2012. I used the Electronics International MVP-50P engine/systems analyzer to set power for the takeoff from Santa Fe (elevation 6,348 feet msl). So it was full throttle, lean until the MVP read the highest horsepower—which turned out to be a respectable 72 percent—then enriched to 100 degrees rich of peak exhaust gas temperature (EGT) for best power. Yes, the ship took its time to reach the 70-knot rotation

speed while charging down Runway 20, but the airplane was off the ground and climbing at 400 fpm well before there was any concern about using up too much of the runway's 8,342 feet.

Some three hours later our formation landed in northern Texas at Sheppard Air Force Base/Wichita Falls Municipal Airport. All I can say is: Huge runways, long taxi times, and no tower! (Shepherd AFB operations are shut down on most weekends.) It felt odd to self-announce on CTAF while seeing acres of parked warplanes below. Then it was an overnight stop at Alexandria, Louisiana, after a two-hour, 30-minute flight. The next day, we went on to Lakeland, a four-hour-and-change leg that showed off the value of the Debonair's 20-gallon-per-side tip tanks (I filled them halfway).

We'll talk in depth about the avionics in the next issue, but in the meantime are you interested in the Debonair's cruise performance? Here's one set of numbers, written down at 7,500 feet msl east of the Bonham, Texas, VOR (BYP):

OAT | +18 deg C./64 deg F.
 Engine settings | 21.9 in MP/2,430 rpm
 Power output | 72 percent
 Fuel burn | 14.3 gph
 Mixture setting | 52 deg F. rich of peak
 Peak EGT | 1,474 deg F., Number 6 cylinder
 True airspeed | 148 KTAS
 Indicated airspeed | 128 KIAS
 Groundspeed | 150 knots

This would prove to be a pretty typical setup for the Lakeland trip. Sometimes I'd run at 100 or 150 degrees rich of peak EGT, just to give the engine a workout, get a better true airspeed, and continue to help clean out any remaining internal engine deposits. The engine had been essentially idle when AOPA bought it last summer, so "run her hard" is the slogan for now. There will be plenty of time to explore lean-of-peak EGT operations on future flights.

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