4.000TH BONANZA

Classically modern

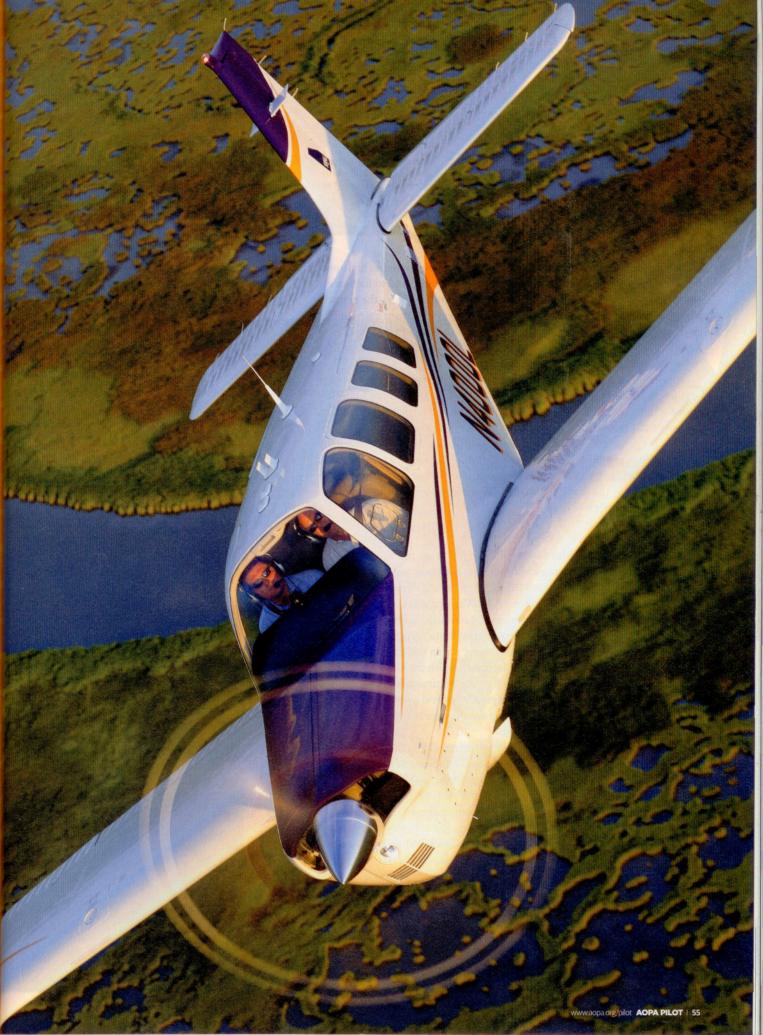
How a new Bonanza helps build one company and rebuild another

BY THOMAS B. HAINES
PHOTOGRAPHY BY CHRIS ROSE



/IDEO EXTRA

Fly along with Editor in Chief Tom Haines.



THE GARMIN G1000

avionics suite (below right) dramatically simplifies the panel layout. The automatic environmental control system (right) below the throttle quadrant is a significant new upgrade. Keyless ignition and dual alternators and batteries simplify operation and increase reliability (far right).

he Beechcraft Bonanza revolutionized the single-engine high-performance category when it hit the market in 1947. Compared to its nearest competitor—the dowdy radial-engine Cessna 195 taildragger—the retractable-gear, horizontally opposed Continental-powered Bonanza was unlike anything the industry had seen. Now, today's version of the Bonanza is having that same impact on a small commercial real estate brokerage firm in Baltimore.

After owning N4000L—the 4,000th Model 36 Bonanza to be built—for only a few weeks, company Chief Pilot Jose Santana says he can't imagine a time when the growing company wouldn't own an airplane. In addition to flying the Bonanza G36, Santana, an attorney, also serves as the associate vice president for leasing for the Seagall Group. Two other company principals also are pilots: Founder and CEO Andy Seagall is a student pilot; his father, Mark, is the chairman and a sport pilot. Access to the airplane is changing the way the firm does business and allowing it to expand its footprint in the Mid-Atlantic region.

SHOPPING TRIP

The day prior to our visit with Santana, he had put to the test a plan the partners had envisioned when they went shopping for a new airplane early this year. Clients from out of the region airlined it to Ronald Reagan Washington National Airport for meetings in suburban Washington, D.C. Santana and Andy Seagall then picked up the clients at Leesburg, Virginia; flew them to Newport News, Virginia; and then to Martin State Airport in Baltimore. The clients, like many for the Seagall Group, are in the chain restaurant business. Seagall helps them find new locations. With the airplane they can visit numerous sites in a day instead of battling Baltimore and Washington metro area highway traffic. After the regional general aviation flights, the clients commented that the one-day trip would have taken three without the Bonanza.

Sitting in the back, enjoying the ship's standard air conditioning system on a steamy July day, the clients pulled out the folding desk and worked en route, said Santana. It was the six-seat cabin that sold the company on the G36. "The cabin won over the chute," he said, noting that the other contender for their business was a Cirrus, which comes standard with a whole-airplane parachute system. Santana did multiple demo flights, including flying the Cirrus and the Bonanza back to back. While he and Andy Seagall appreciated the performance of the Cirrus, they better envisioned their clients riding in the Bonanza. "It's like a little airliner—very solid and stable. With the yaw damper and hot prop as standard equipment, well, we fly it like a jet," said Santana.

That reputation as a working airplane goes back to the original V-tail airplane of 1947, when Beechcraft promoted it as a "businessman's" airplane. The Bonanza has been in continuous production longer than any airplane ever, with some 18,000 units out of the Wichita factory over the decades. The G36 shares most of its lineage with the straight-tail Model 33







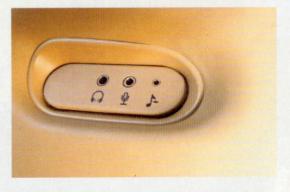




Debonair, which debuted in 1960 and included four seats like the V-tails (although some can be equipped to carry three in the back). A 1963 Debonair is the AOPA 2014 Sweepstakes project airplane currently undergoing a massive refurbishment (see "Briefing: Paint in Progress," page 34).

By 1968, Beech officials saw a need for a larger variant and introduced the Model 36, which included a 10-inch stretch ahead of the wing, and the addition of two aft doors, and an option (in the beginning) for club seating for easy cabin access. No longer would passengers have to climb over the copilot's seat to get in the aft cabin. The cabin stretch also widened the center-of-gravity envelope and reduced the short-bodied airplane's tendency toward fishtailing in flight. The club-seating configuration later became standard. In 1970, numerous cabin changes led to the introduction of the A36, a model designation that would stick for more than 35 years. Turbocharged A36TC models and the B36TC—with longer wings—would come and go, but the normally aspirated A36 soldiered on.

In 1979 Beech redesigned the cabin to include a baggage compartment stretching into the tailcone. In 1984, the stock Continental IO-520 at 285 horsepower continuous (300 horsepower for takeoff) was replaced with the IO-550, capable of 300 horsepower continuously, allowing for a boost in maximum takeoff weight from 3,600 pounds to 3,650. At the same time Beech dramatically redesigned the panel, eliminating the signature dual yoke (with an optional throw-over yoke) in favor of a conventional set of dual controls. The landing gear switch was moved from the right to the left of the center of the panel; the flap switch from the left to the right—more in sync with what had become a standard in other models. The change has caused many gear-up landings in 36s as pilots used to one configuration moved to an airplane with the other. The 1984 model also replaced the individual engine controls with a more modern throttle quadrant. The avionics panel



was increased in height, allowing for the placement of the six primary flight instruments in a standard six-pack configuration and a stack of round engine gauges.

UPGRADES

More than two decades would pass before what had become Raytheon Aircraft and then Hawker Beechcraft would again invest in significant upgrades. In 2006, the model became the G36 with the introduction of the Garmin G1000 glass cockpit and the GFC 700 integrated flight control system. The two 10.4-inch displays, a primary flight display and a multifunction display, replaced the conventional flight instruments and nav/coms. Three independently powered mechanical backup instruments remain. The Bonanza was the first to get Garmin's all-new GFC 700 digital autopilot. Garmin calls it an "integrated flight control system" because it truly is integrated into the aircraft, dramatically reducing pilot workload and bringing features normally found only on much larger aircraft, such as altitude preselect, flight level change, and go-around mode. Since the introduction of the





AN IMPROVED DOOR
latch (far left) is a
welcome change
over earlier models.
Swooping interior lines
and a new-style table
give the cabin a modern
feel (left center).
Music inputs and cup
holders abound (below
left). An overhead control
allows passengers to
control temperature
(below right).





G1000, Garmin and Beechcraft—today's name of the company after emerging early this year from the bankruptcy of Hawker Beechcraft—have continued to invest in the model. Today's G1000 includes satellite-delivered weather, terrain and traffic warnings, WAAS approaches, synthetic vision, highway-in-the-sky flight path guidance, and a host of other features that the designers of the Bonanza couldn't even conceive of 65 years ago. Dual alternators and dual batteries provide backup and redundancy to all of the electronics.

While leveraging all the capabilities, the pilot and passengers will be riding in new levels of comfort. Beech over the past couple of years has upgraded the interior appointments, replacing all of the interior and exterior lights with LEDs—reducing power consumption while lowering maintenance demands thanks to their long lives. Opening the doors now

activates overhead courtesy lights throughout the cabin. Indirect floor lighting in the aft cabin and in the pilot/co-pilot foot wells also helps brighten the cabin. Seats restyled with curving lines and upgraded headrests give the cabin a modern feel. Most important, the G36 includes an automatic climate control system. It's a setand-forget system. Dial in the temperature you want and it modulates heat and air conditioning as required. Santana says it works well. On the day we flew N4000L, the outside air temperature was 96 degrees, yet the cabin cooled down quickly after engine start. Unlike some air conditioners in early 36 models, this one can be left on for takeoff and landing. Passengers have an overhead control for the aft cabin.

One thing retained from the earliest Bonanza is the legendary performance and handling.

Although a little heavier in feel than the shorter models, the G36 is well balanced and a delight to fly while being stable enough to easily handfly approaches; the longer-bodied 36s are much more stable in pitch than the shorter ones. Bonanzas once led in cruise performance. Some newer fixed-gear four-place models, including the Cirrus, can now best it in speed, but the Bonanza with its larger cabin is still in the race. Beechcraft lists a maximum cruise of 176 knots true at 6,000 feet, which is achievable at lighter weights. But count on 170 to 172 knots day in and day out, rich of peak and while burning 17 to 18 gallons per hour. If you're willing to give up about 8 knots, you can bring the fuel burn down to 12 to 13 gph, stretching the endurance with reserves to some five hours. Not bad on just 74 gallons of usable fuel. A popular aftermarket modification is the addition of tip tanks, which can add up to 40 additional gallons and boost max takeoff weight by 200 pounds.









Many of those upgrades are done less for the additional fuel and more for the extra carrying capacity, because like most of today's well-equipped singles, the G36 is heavy. That air conditioning, the thick windows, soundproofing, and leather interior carry a weight penalty, putting a typical G36 empty weight at about 2,630 pounds, leaving just about 560 pounds for pilot and passenger when carrying the full 74 gallons.

Leaving those aftermarket tips empty allows for the carrying of an additional person and bags. Even with the stock fuel capacity, the accurate fuel gauges allow the pilot to easily trade fuel

for payload on shorter runs, as Santana often sees on missions for the Seagall Group.

COMFORTABLE CLIENTS In the order of the benefit of the control of

Overall, Andy Seagall sees the G36 as providing what he hoped for: a way to move staff and clients around at a comfort level similar to an automobile. The company began using airplanes about three years ago when Santana, a former charter pilot, offered to fly Seagall from Baltimore to a meeting in Richmond. The convenience was addicting. They began using rental aircraft more often, but after a painfully cold





SPEC SHEET

Beechcraft Bonanza G36

STANDARD-EQUIPPED PRICE: \$765,900

SPECIFICATIONS

Powerplant | Continental IO-550-B, 300 hp

| Recommended TBO | 1,700 hr

Propeller | Hartzell, constant-speed, 3-blade, 80-in dia

Length | 27 ft 6 in

Height | 8 ft 7 in

Wingspan | 33 ft 6 in

Wing area | 181 sq ft

Wing loading | 20.2 lb/sq ft

Power loading | 12.2 lb/hp

Seats | 6

Cabin length | 12 ft 7 in

Cabin width | 4 ft 2 in

Cabin height | 3 ft 6 in

Empty weight | 2,630 lb

Empty weight, as tested | 2,653 lb

Max ramp weight | 3,663 lb

Max gross weight | 3,650 lb

Useful load | 1,033 lb

Useful load, as tested | 1,010 lb

Payload w/full fuel | 589 lb

Payload w/full fuel, as tested | 566 lb

Max takeoff weight | 3,650 lb

Max landing weight | 3,650 lb

Fuel capacity, std | 80 gal (74 gal usable) 480 lb (444 lb usable)

Oil capacity | 12 qt

Baggage capacity, total | 670 lb

Baggage capacity, aft | 70 lb, 10 cu. ft

PERFORMANCE

Takeoff distance, ground roll | 1,913 ft

Max demonstrated crosswind component
| 17 kt

Cruise speed/range w/30-min rsv (fuel consumption)

@ High speed, best economy | 176 kt/671 nm

6,000 ft | (97 pph/16 gph)

@ Normal, best economy | 167 kt/ 746 nm

8,000 ft | (84 pph/14 gph)

@ Economy, best economy | 160 kt/ 854 nm

8,000 ft | (72 pph/12 gph)

Service ceiling | 18,500 ft

Landing distance, ground roll | 950 ft

LIMITING AND RECOMMENDED AIRSPEEDS

V, (best angle of climb) | 84 KIAS

V_y (best rate of climb) | 100 KIAS

V_A (design maneuvering) | 141 KIAS

V_{EE} (max flap extended) | **154 KIAS**

V_{LE} (max gear extended) | **154 KIAS**

V_{LE} (max gear extended) | 154 KIA

V_{LO} (max gear operating)

Extend | 154 KIAS Retract | 154 KIAS

V_{NO} (max structural cruising) | 165 KIAS

V_{NF} (never exceed) | 205 KIAS

V_o (rotation) | 75 KIAS

V_{s1} (stall, clean) | 68 KIAS

. V_{so} (stall, in landing configuration) | **58 KIAS**

FOR MORE INFORMATION

Contact Beechcraft Corporation, 10511 East Central, Wichita, Kansas 67206; 316-676-5034; www.beechcraft.com

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.

EXTRA

Highly accurate fuel measuring allows for easy trading of fuel for payload, meaning better utilization of the passenger seats.

LEDS OUTSIDE (top left) and inside improve lighting and visibility, and reduce maintenance and power draw. The Model 36's aft doors mean passengers don't have to crawl over the co-pilot seat (far left). Did we mention the abundance of cup holders?

flight last winter in an old Piper Seneca with an anemic heater, Seagall wanted something that would make clients comfortable. He credits the current IRS accelerated depreciation program for helping to convince him to buy a new airplane rather than used. Another reason for new was the factory warranty, which helps provide predictability to the budget. "This is our first airplane," reminds Santana, "so it's comforting to know what we're getting into from a cost standpoint."

Seagall admits a bias toward buying from an American company and the fact that the manufacturer was just emerging from bankruptcy didn't give him many concerns. Seagall started his company in the midst of the current economic doldrums, so he felt a certain empathy for Beechcraft and its employees. At the delivery ceremony for the 4,000th Model 36, Seagall addressed the Beech employees, encouraging them to persevere.

A reflection of that same spirit, perhaps, the G36 seems poised for a much longer future. While some models of such lineage feel like antiques or classics at this point, the G36 seems ready for decades more flying.

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