

F-33A BONANZA
AIRLINE OPPORTUNITIES
HOLLYWOOD BLUNDERS
BWI/DCA/IAD AIRSPACE

THE NEW/OLD F33A BONANZA

*More for less: Beech
faces the music with
a \$33,000 price cut.*

BY THOMAS A. HORNE

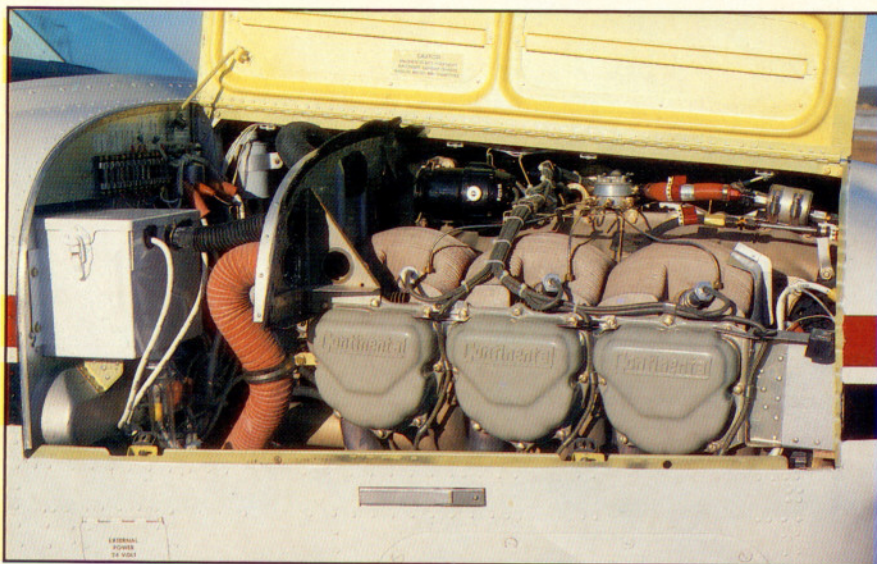




Ever since new general aviation aircraft sales began their plummet eight years ago, experts have debated the reasons. There is no shortage of ideas: Astronomical product liability and aircraft insurance premiums, manufacturers' narrow-minded focus on the bottom line, shrinkage of the pilot population, increased regulatory burdens on pilots, the strength of the used airplane market, changes in the tax laws and sticker

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The F-33A has what many want in a Bonanza—good radios, dual pneumatic pumps and a straight tail.



shock are but a few of the reasons.

Manufacturers have taken a closer look at the effect of sticker shock and have made a discovery. Demand for new lightplanes is elastic, meaning that sales are very sensitive to changes in price. Lower the price, and increased sales will follow. Not surprising, except for the fact that many experts have taken a glum view of an industry revitalization. Of late, general aviation manufacturing is an industry that has been pronounced dead on many occasions.

While its future is by no means certain, there have been some examples of the market responding favorably to price cuts. Mooney Aircraft Corporation's M20J "Lean Machine," at \$98,900 (including a King-equipped IFR panel), has been particularly successful (see "A Tale of Two Mooneys: Lean Machine," October 1985 *Pilot*, p. 34). Mooney's M20J Model 205, with a base price of \$101,300, is also a strong seller. Other manufacturers are also testing the waters with base prices near the \$100,000 mark. There is the \$92,000 Bellanca 17-30A Super Viking (see "Yesterday's Wings Today: The Bellanca Viking," November 1986 *Pilot*, p. 58) and

Aerospatiale/Socata Division's \$72,000 TB-10 Tobago (see "Pilot Précis: Tobago," November 1981 *Pilot*, p. 69) and \$111,000 TB-20 Trinidad (see "Socata Trinidad," September 1984 *Pilot*, p. 44).

To this group, add Beech Aircraft Corporation's F-33A Bonanza, discounted in January 1987 from \$164,750 to \$131,750. The discount was reportedly due to Beech's obtaining price reductions from component suppliers. The price includes an impressive list of standard equipment, including a King avionics package (consisting of dual navcoms, marker beacon receiver, automatic direction finder, distance measuring equipment and a Mode A transponder), an exhaust gas temperature gauge, strobe lights, a three-blade propeller and a standby pneumatic pump.

The standby pneumatic pump is electrically driven. When the primary pump fails, a red Gyro Warn light (located to the lower left of the heading indicator) illuminates. The pilot must then switch the standby gyro on and observe a rise on the instrument air pressure gauge. Both pumps are of the pressure type, manufactured by Airborne. The pilot's operating handbook advises that the pneumatic system filters be replaced at least every 300 hours of operation. The standby pump should be replaced every 600 hours of system operation.

A standby generator is also available, but not from the factory. The cost of this part is approximately \$1,600, not including installation. Beech requires that standby generators be inspected every 100 hours and overhauled or replaced every 1,500 hours.

The avionics options list consists of a King KEA-130 transponder with encoding altimeter (\$2,295) and a King KFC-150 autopilot/flight director with a slaved KI-525A-00 horizontal situation indicator (\$25,525). This latter option includes electric pitch trim. As for the KEA-130, it is difficult to understand why this was made an option. For an airplane of this capability and price, an altitude-reporting transponder should be part of the standard package.

Other options include:

- A fifth seat (\$1,590)
- Air conditioning (\$10,950)
- Electric propeller anti-ice (\$3,250)
- A 100-ampere/hour alternator (\$795). Air conditioning and propeller anti-ice require the power output of this alternator.
- Copilot brakes (\$995)
- Dual control wheel (\$795). The stan-

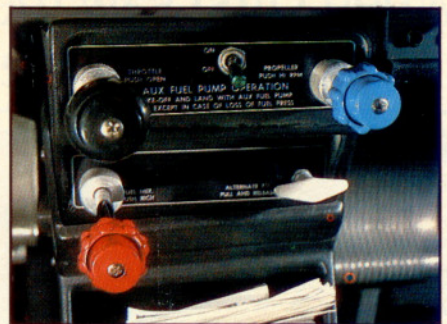
dard single control wheel is of the throw-over type.

The F-33 Bonanza has been a popular airplane ever since its introduction in 1970. Then, it was powered by a 225-horsepower Continental IO-470-K engine and marketed as a replacement in name for the Model 33 Debonair series. In 1971 the F-33A was introduced. This aircraft, like all succeeding F-33As, was powered by the 285-hp IO-520-B.

Today, there are some 1,700 Debonairs and F-33s on the Federal Aviation Administration's civil aircraft registry. And according to the *Aircraft Blue Book—Price Digest*, they have held their value well—a testimony to their durability and appeal. Average retail price for a 1970 F-33 is approximately \$42,500, only \$3,000 or so below what its average new price was. A large factor in the F-33's staying power in the used market may be the concern over the integrity of the Model 35's V-tail, concern that has generated an airworthiness directive limiting these airplanes' maximum cruise speeds (see "Pilot News: Beech Restricts V-Tail Bonanza Speeds," December 1986 *Pilot*, p. 23).

The 1987 F-33A has the same solid feel, roominess and comfort as its predecessors. Pilots and passengers sit tall and have good visibility and high-quality seats. Center armrests are standard. Equally pleasant are the airplane's handling qualities and the flexibility afforded by its V_a of 134 KIAS and its V_{lo} and V_{fe} of 154 KIAS. Control responsiveness and harmony are very good. The general impression is one of high quality and pride in workmanship.

There are some cautions, however. One is the nonstandard arrangement of landing gear, flap and mixture controls. The F-33A was certificated in 1970 under grandfathering provisions of Civil Aviation Regulation 3, the forerunner of today's Federal Aviation Regulation Part 23. That was in the days before the standardization of cockpit instrumentation and controls. Like all pre-1983 Bonanzas (the year when the A36 and B36TC Bonanzas changed their panel configurations to meet modern standards), the F-33 has its flap switch on the left side of the center console, above the throttle. The landing gear switch and landing gear position indicator lights are to the right of the propeller rpm control. Pilots familiar with the modern standard—gear switch on the left, flap switch on the right—can be tricked into inadvertently retracting the landing gear. With



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dual controls, the chance of activating the wrong switch is more likely. The large bar that connects the control yokes obscures the pilot's view of the subpanel where they are located.

The landing gear switch is guarded by a plastic cover to help prevent inadvertent retraction, but the most effective ways to avoid the problem are to become thoroughly familiar with the airplane during the checkout process and to double-check your actions before activating the switches.

The same can be said for the mixture control, which is below the throttle. Until a pilot gains the necessary familiarity, there is apt to be some fumbling while adjusting propeller and mixture controls. The fuel selector is awkwardly placed, too—beneath the pilot's left knee, all but tucked out of sight.

Weight and balance should be another concern. Yes, the airplane can be fitted with a fifth seat. And yes, the rear cargo area can accommodate 270 pounds. But careful preflight weight and balance and center of gravity computations will reveal that aft loadings must be made very carefully. The fifth seat promises more than it delivers. For all practical purposes, the F-33A Bonanza is a four-place airplane.

Most people will find the airplane's shortcomings of little consequence, considering its many attributes. Slowly, customers are responding to the price incentive. In 1986 Beech sold 28 F-33As.

*It is difficult
to understand
why the airplane
was not fitted with
a Mode C transponder.*

Twelve were sold in January and February of this year, and the company expects to sell 100 by year's end.

It is an encouraging sign. Perhaps the general aviation industry is not dead after all. It may have just been suffering from a lack of creative marketing concepts or—more to the point—an inability to listen to its customers. □

Beechcraft Bonanza F-33A

Base price: \$131,750

Specifications

Powerplant	Teledyne Continental IO-520-BB
	285 hp @ 2,700 rpm/full throttle
Recommended TBO	1,500 hr
Propeller	McCayley constant-speed three-blade, 80 in dia
Recommended TBO	1,500 hr or 5 yr
Length	20 ft 8 in
Height	8 ft 3 in
Wingspan	33 ft 6 in
Wing area	181 sq ft
Wing loading	18.8 lb/sq ft
Power loading	11.9 lb/hp
Seats	4 or 5
Cabin length	10 ft 1 in
Cabin width	3 ft 6 in
Cabin height	4 ft 2 in
Basic empty weight	2,125 lb
Empty weight, as tested	2,268 lb
Max ramp weight	3,412 lb
Useful load	1,287 lb
Useful load, as tested	1,144 lb
Payload w/full fuel	843 lb
Payload w/full fuel, as tested	700 lb
Max takeoff weight	3,400 lb
Max landing weight	3,400 lb
Fuel capacity, std	480 lb (444 lb usable)
	80 gal (74 gal usable)
Oil capacity	12 qt

Baggage capacity 270 lb, 36.7 cu ft

Performance

Takeoff distance, ground roll	1,000 ft
Takeoff distance over 50-ft obst	1,769 ft
Max demonstrated crosswind component	17 kt
Rate of climb, sea level	1,167 fpm
Cruise speed/endurance w/45-min rsv (fuel consumption)	
@ 75% power, 8,000 ft	170 kt/4.4 hr (86.4 pph/14.4 gph)
@ 65% power, 8,000 ft	163 kt/4.8 hr (79.8 pph/13.3 gph)
Service ceiling	17,858 ft
Landing distance over 50-ft obst	1,324 ft
Landing distance, ground roll	800 ft

Limiting and Recommended Airspeeds

Vx (Best angle of climb)	77 KIAS
Vy (Best rate of climb)	96 KIAS
Va (Design maneuvering)	134 KIAS
Vfe (Max flap extended, approach)	154 KIAS
Vfe (Max flap extended, full)	123 KIAS
Vle (Max gear extended)	154 KIAS
Vlo (Max gear operating)	154 KIAS
Vno (Max structural cruising)	167 KIAS
Vne (Never exceed)	196 KIAS
Vs1 (Stall, clean)	64 KIAS
Vso (Stall in landing configuration)	52 KIAS

All specifications are based on manufacturer's calculations. All performance figures are based on standard day, standard atmosphere, at sea level and gross weight, unless otherwise noted.