







less than the cost of a new airplane. "For about the same price as a 25-year-old airplane, we can give a customer 100 hours per year in a new one," he says. With loaded Bonanzas and Barons leaving the factory for \$600,000 and \$1 million, respectively, aspiring airplane owners can certainly appreciate what Rindler is attempting to do—make new airplanes more affordable.

The cost of a quarter share in a new A36 Bonanza will be \$125,000 and the Baron will ring in at \$250,000. Rindler believes that a first-class operation, using all-new

airplanes for both the shared ownership business and a complementing regional charter operation called CarinaStar Airways, will be well received in the marketplace and will differentiate CarinaStar from traditional ownership options and charter operations. An aggressive equipment turnover plan will make sure that owners and charter passengers are always flying in airplanes no more than five years old. For the charter side of the business this is certainly a change from typical 135 operations, which utilize airplanes frequently older than their pilots.

Twenty-five-year-old A36s and Baron 58s average \$134,000 and \$170,000, respectively, according to *Vref.* That price is reflective of airplanes equipped with 1970s-era avionics, midtime engines, and paint and interior conditions rated seven on a one-to-10 scale. CarinaStar's new airplanes, obviously, will have the latest avionics (including IFR-approved GPS and color radar), new paint and interior, and new engines, thereby boosting overall value to the shareholder.

Maintenance, cleaning, insurance, hangar, and scheduling—ordinarily a bane to owners—will be paid for through a monthly handling charge. CarinaStar believes that the overall cost of ownership will be less expensive than owning a used air-

plane of similar value because of the lower maintenance costs of new airplanes and volume purchasing. Raytheon offers warranties of varying length for airframe, engine, and avionics. An hourly operating fee will also be assessed; however, that figure and the handling charges won't be determined until later this summer.

The Baron featured on these pages is CarinaStar Airways' first airplane, which will be used as a demonstrator for the fractional program and the first airplane for the charter operation. CarinaStar Air-

For the price of a 25-year-old airplane, you can buy a quarter share in a new one.



Chief Pilot Brion Gluck (left) and Michael Rindler, president, at the CarinaStar headquarters in Hilton Head, South Carolina. Bendix/King Silver Crown Plus avionics are new for Beech piston airplanes (left).

ways' FAR Part 135 certificate should be in hand by the end of the summer.

CarinaStar's airplanes won't be ordinary Bonanzas and Barons. Since 1984, when Beech incorporated the 300-horsepower Continental IO-550 and redesigned the instrument panels of the A36 Bonanza and

Baron 58, little has been done to the piston line. Today, under the guidance of an energetic director of the piston line, Raytheon is infusing new life into these stalwart designs (see "What's Next for Raytheon's Piston Line?" p. 75). CarinaStar is the launch customer for the forthcoming Jaguar Special Edition Bonanza and Baron. Like the Jaguar edition of the Beech King Air C90B offered last year, the Bonanza and Baron will have specially outfitted interiors and unique paint schemes.

Running on the success of the Jaguar King Air (in which a few extra airplanes had to be produced to meet demand), Raytheon and Jaguar will each enjoy a sort of promotional cross-pollination of their respective products. For Raytheon, it means more than just getting exposure at auto shows. Expect cabin mockups and information to be displayed at horse shows, boat shows, and other places where potential customers abound. For Jaguar, expect to see cars using up space in a Raytheon display at events such as the National Business Aviation Association convention and EAA AirVenture in Oshkosh.

Many of the interior appointments seen in Carina-Star's new Baron will be incorporated into the new Jaguar edition. Although N87RG's seats are the standard Bonanza/Baron seats, they are covered in luxurious ivory-colored leather that will be fitted in the Jaguar airplanes. Seats in the Jaguar

airplane will use the same frames but have new cushions tailored to look like those found in the Jaguar Vanden Plas luxury car. N87RG's seats are complemented by leather-covered sidewalls with integrated armrests. Real wood inserts accent the interior decor. Practical folks will appreciate other little touches such as the built-in cup holders (which replace stan-

N87RG's interior is outfitted with many features to be incorporated into the new Jaguar airplanes. New Beech piston airplanes are equipped with the Special Edition engines. dard ashtrays), pockets that are sewn into the bottom of the front seats for storage of flashlights or charts, and a chart clip that has been added to the right side of the pedestal for storage of checklists or additional charts. To cap off what may be the nicest interior available on a new piston airplane, Raytheon tastefully wrapped the yokes in leather.

On the outside, a special paint scheme has been designed to set the Jaguar airplanes apart from standard Bonanzas and Barons. This paint is a

two-stage (base coat/clear coat) paint that provides deeper color, better durability, and easier spot repairs.

After several years of fielding complaints from Raytheon customers about premature cylinder wear, Continental and Raytheon worked together to raise the quality of engine that powers these top-dollar airplanes. Today, all new Barons and Bonanzas are powered by Continental's Special Edition engines. These engines incorporate many features found in customized examples emerging from specialty overhaul shops like Ultimate Engines or Victor Aviation. Crankcase dowels are now installed to keep the case halves better aligned, and a balanced crankshaft nestles between the halves. Continental has built a special cylinder shop at its Mobile, Alabama, factory to match cylinder exhaust and induction port flow rates to within 5 percent for the Special Edition engines. Intake valves and the induc-









tion runners have also been modified to improve airflow. Balancing of the pistons and connecting rods is intended to smooth operation and reduce wear caused by imbalance. Continental, which previously snubbed balanced fuel injectors sold in the field, is now including a set in the Special

Edition IO-550s and the TSIO-520, which powers the B36TC turbo-charged Bonanza. According to Raytheon flight test data, these changes have resulted in a reduction of vibration-related squawks from one in six airplanes to one in 138.

On the avionics side, Raytheon has incorporated AlliedSignal's Bendix/King Silver Crown Plus avionics into its 1999 piston line. The newest addition to the stack is the KFC-225 three-axis autopilot, with altitude preselect, vertical speed hold, and

The new Baron, even with a full load, turned in true airspeeds as high as 209 knots at a power setting of 23 inches and 2,500 rpm.

built-in altitude alerter. The new autopilot resides high in the instrument panel rather than on the pedestal, as the old KFC-200 did. Raytheon intends to hollow out the area where the old autopilot control head lived and use it for storage of small items and for a GPS dataloading plug.

The autopilot received accolades for smoothness and operation on the flight from the Raytheon factory in Wichita to CarinaStar's Hilton Head, South Carolina, home base. Engine smoothness and power were also notable. The new Baron, even with a full load, turned in true airspeeds as high as 209 knots at a break-in power setting of 23 inches of manifold pressure and 2,500 rpm at 7,000 feet. If the airspeed indicator is correct, that is almost 10 knots better than

book figures. After clouds nudged us up to 9,000 feet, N87RG still sped along at 196 knots at a more realistic 65-percent power (21.5 inches and 2,300 rpm). Interior noise level, measured with a portable decibel meter, was a quiet 83 dBA in the center seat area, although the cockpit area registered 91 dBA—a typical figure for Barons. The new sound-proofing Beech plans for the Jaguar airplanes appears to work well in the rear of the airplane.

N87RG has spent many hours

since delivery strutting this kind of performance to potential fractional owners in the Hilton Head area. Rindler hopes to attract nonpilots from the area to the shared ownership program by flying them on CarinaStar Airways. It is hoped that after a flight or two, these nonpilots will be smitten by the operation and inspired to buy a share and learn to fly.

Since the network of airplanes will be limited at first, CarinaStar Shares will be confined to the area in and around Hilton Head. The first Jaguar A36 Bonanza has been ordered and is expected to be delivered by the end of the year. As more airplanes and owners come aboard, the business will likely expand to encom-

pass the entire southeastern United States. When schedule conflicts arise N87RG will stand in as a reliever airplane for the fractional airplanes. CarinaStar's Web site will contain a program designed to make scheduling convenient and easy.

Besides hoping that the shared ownership concept enjoys as much success as it has for the corporate jet set, Rindler hopes that CarinaStar Shares will raise the caliber of ownerpilots. Minimum training standards and mandatory currency requirements from a company such as FlightSafety International or SimCom will have to be met by the pilots. Those not meeting the standards will be able to fly with one of the charter company's professional pilots until they're up to speed. In the beginning, those pilots will fly with Chief Pilot Brion Gluck, an experienced charter pilot and ATP with more than 9,000 hours of flight time. Gluck is CarinaStar's first employee and is responsible for setting up the charter side of the business. Training is included in the price of the share, and the airplanes will be identically equipped in order to ease transition. Pilots switching from one airplane to another won't have to learn anything different except the correct N number of the airplane being flown.

CarinaStar's overall goal is to offer a



turnkey service allowing pilots to experience the joy of flying without having to sell the farm to buy a new airplane. Will it work using piston airplanes in a limited region? Time will tell. CarinaStar's plan is modeled after Raytheon's Travel Air fractional ownership program. In fact, Raytheon offered key support to Rindler's concept by providing ideas and insight that just may be the key to CarinaStar's success.

For more information about CarinaStar, telephone 843/689-2936 or visit the Web site (www.carinastar.com). Links to all Web sites referenced in this issue can be found on AOPA Online (www.aopa.org/pilot/links.shtml). E-mail the author at pete.bedell@aopa.org

1999 Raytheon Beech Baron 58

Base price: \$931,000 Price as tested: \$960,160

Specifications

2 Continental IO-550-C, 300 hp ea Powerplants Recommended TBO Propellers Hartzell three blade, constant speed, full feathering, 76 in dia. Length 29 ft 10 in Height 9 ft 10 in Wingspan 37 ft 10 in 199.2 sq ft Wing area Wing loading 27.6 lb/sq ft Power loading 9.16 lb/hp Seats Cabin length 12 ft 7 in 3 ft 6 in Cabin width Cabin height 4ft2in Empty weight 3.808 lb Empty weight, as tested 3,983 lb 5,527 lb Maximum ramp weight Maximum gross weight 5,500 lb Useful load 1.719 lb Useful load, as tested 1,544 lb Payload w/full fuel 723 lb Payload w/full fuel, as tested 548 lb Maximum takeoff weight 5,500 lb Maximum landing weight 5,400 lb 172 gal (166 gal usable) Fuel capacity, std 1,032 lb (996 lb usable) Fuel capacity, w/opt tanks 200 gal (194 gal usable)

Performance

Oil capacity, ea engine

Baggage capacity

Takeoff distance, ground roll	1,400 ft
Takeoff distance over 50-ft obstacle	2,300 ft
Accelerate-stop distance	3,000 ft
Accelerate-go distance	3,200 ft

1,200 lb (1,164 lb usable)

(nose) 300 lb, 18 cu ft

(aft) 120 lb, 10 cu ft

12 at

Max demonstrated crosswind component
Rate of climb, sea level
1,735 fpm
Single-engine ROC, sea level
390 fpm
Cruise speed/endurance w/45-min rsv, std fuel
(fuel consumption, ea engine)

@ 75% power, best economy	201 KTAS/4.3 hr
7,000 ft	(98 pph/16.4 gph)
@ 65% power, best economy	191 KTAS/4.9 hr
7,000 ft	(88 pph/14.6 gph)
@ 55% power, best economy	177 KTAS/6.3 hr
10,000 ft	(71 pph/11.8 gph)
Service ceiling	20,688 ft
Single-engine service ceiling	7,400 ft
Landing distance over 50-ft obst	acle 1,950 ft
Landing distance, ground roll	1,500 ft

Limiting and Recommended Airspeeds

V_{MC} (min control w/critical engine inoperative)
84 KIA:

V _{SSE} (min intentional one-engine operation)		
	88 KIAS	
V _X (best angle of climb)	92 KIAS	
V _Y (best rate of climb)	105 KIAS	
V _{XSE} (best single-engine angle of climb)	100 KIAS	
V _{YSE} (best single-engine rate of climb)	101 KIAS	
V _A (design maneuvering)	156 KIAS	
V _{FE} (max flap extended)	152 KIAS	
V _{LE} (max gear extended)	152 KIAS	
V _{LO} (max gear operating)	152 KIAS	
V _{NO} (max structural cruising)	195 KIAS	
V _{NE} (never exceed)	223 KIAS	
V _R (rotation)	85 KIAS	
V _{S1} (stall, clean)	84 KIAS	
V _{SO} (stall, in landing configuration)	73 KIAS	

For more information, contact Raytheon Aircraft Company, Post Office Box 85, Wichita, Kansas, 67201, 316/676-7111; or visit the Web site (www.raytheon.com/rac/).

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.