

by DENNIS PEARCE

■ The hardest thing about flying Beech Aircraft Corp.'s new Sierra 200 is to keep from calling it a Musketeer. "We don't make Musketeers any more," Jeff Ramsey, East Central States zone manager, said politely, as we walked around the airplane at Beech Field while waiting for an early-morning Wichita fog to burn off.

But I don't mislabel the aircraft on purpose. It is accidental, stemming from the many hours I spent in the 200's fixed-gear, 180-hp little brother, getting my commercial license. The easiest way to break the mislabeling habit is to spend an afternoon flying the top of the line of Beech's Light Aircraft Division airplanes, which include the Sundowner 180 and the Sport 150.

In engineering talk, the Sierra 200 is known as the B24R, the next up in line from the A24R, which went by the rather mundane name of "Super R" or, to some folks, "Super Mouse."

But the 200 is not just a warmed-over A24R, although the outside resemblance is strong. Besides spicing up the name, Beech went further.

They started with the 200-hp Lycoming IO-360-A1B fuel-injected engine, equipping it with a counterweighted crankshaft that smooths things out, giving the airplane a quieter ride with less vibration. Conversation is difficult in most lightplanes, although some are better than others. The new crankshaft doesn't make the 200 perfect, but the noise level gets lower all the time.

Since Wichita fogs tend to burn off around 10 a.m., we started a thorough preflight walk around N2518W, giving

Ramsey a chance to show off his baby.

As you look at the airplane, the family resemblance is marked. But the 200 has distinct differences that become even more apparent on the inside.

The powers-that-be in Beech's light-aircraft marketing program decreed there would be two doors on their airplanes, and lo, two there are. But with the Sierra, they carried it one step farther: there's another door on the left rear side into the baggage compartment and the optional fifth and sixth (kiddie-size) seats. About three-quarter-sized, it is just right for putting your topcoat out of the way, or for loading golf clubs or what have you. And it's a real live door—one you don't have to latch to the top of the airplane, and one that won't be knocked loose by the wind and come crashing down on your head.

Around front, Ramsey pointed out that the 200's beefed-up nosegear takes some of the worry out of accidentally dropping in on landing. The nosegear is a sister to the pair under the wings; all are stressed to 15Gs.

The first thing you notice when you look inside is the upholstery. It looks familiar and plush, and it should—the appointments are pure Bonanza. It's a far cry from the early Musketeer days when you got any color carpet you wanted, as long as it was icky gray.

The old Musketeer line seemed to be the orphan child of Beech Aircraft. It was there, it kept some people in Liberal, Kan., busy, but nobody seemed to want to do anything about it.

Finally, in the corporate halls one day, someone decided to go with the light-aircraft marketing program. That someone was also astute enough to (1) make it a separate division; (2) hire somebody with light-airplane expertise to run it; (3) sink some money into the program; and (4) give it corporate

backing. The result is a line of top-quality aircraft that is getting better as the program progresses.

True to the laws of economics, this kind of quality costs more. But the country-club set Beech is selling its light-aircraft Aero Club concept to demands (and can pay for) the little touches.

One of these little touches is a plastic, six-ring "Pilot's Operating Manual," instead of a bound book, separated by tabbed pages into the categories of limitations, normal procedures, emergency procedures (suitably tagged with a red tab), performance, weight-and-balance, systems, servicing, and supplemental data. The *pièce de résistance* is plastic page covers to protect the pages you use the most, such as cruise performance charts.

Back to the airplane. The panel has been lowered 1½ inches, adding just a little more to the already great visibility. The glare shield has been padded.

The outside air temperature gauge no longer glares at you from the center of the windshield; it now snuggles down on the left side, out of the way and easier to read.

The magnetic compass that once hung at eyebrow level has been scooted back to the center of the windshield, where it is easily seen but unobtrusive. Its new location also eases my mind. Having read probably too many engineering and medical papers on crash-worthiness, I've often wondered what the compass would do to someone's head should he smite it mightily.

Basic flight instruments are grouped in the now-standard "T" arrangement. The protective lip around the fuel selector valve has been raised to protect the valve from being inadvertently kicked off or to an empty tank.

Since I'm of the opinion that the

**pilot flight check:**

# The BEECHCRAFT SIERRA 200

Nice things have been happening to the 'Super Mouse'—top of the line among Beech's erstwhile Musketeers

only good shoulder harness is two belts coming over the shoulders, hooking to an inertia-reel system, I'm not fond of one-belt-from-hip-to-shoulder systems. The Sierra's hooks to a rather insubstantial-looking screw on the upper left side of the door. The system is inertial and quite comfortable; it's TSO'd after passing a 1,500-pound pull test, and doesn't restrict your movements in the cockpit. But I'd buy the two-belt system you get with the aerobatic airplane, even though it means a special installation.

We'd finished our walk around and the fog had dissipated, so we decided to go fly. The 200-hp Lycoming kicked over, chuff-chuffed a few times, as any respectable aircraft engine should, then decided to settle down and hit on all cylinders.

The Sierra 200 has excellent taxi manners, turns tightly, and gives the pilot a sure, stable feeling on the ground—even in a stiff breeze. The aircraft stands tall enough to give the propeller a 13-inch clearance, so rough field operations are no particular problem.

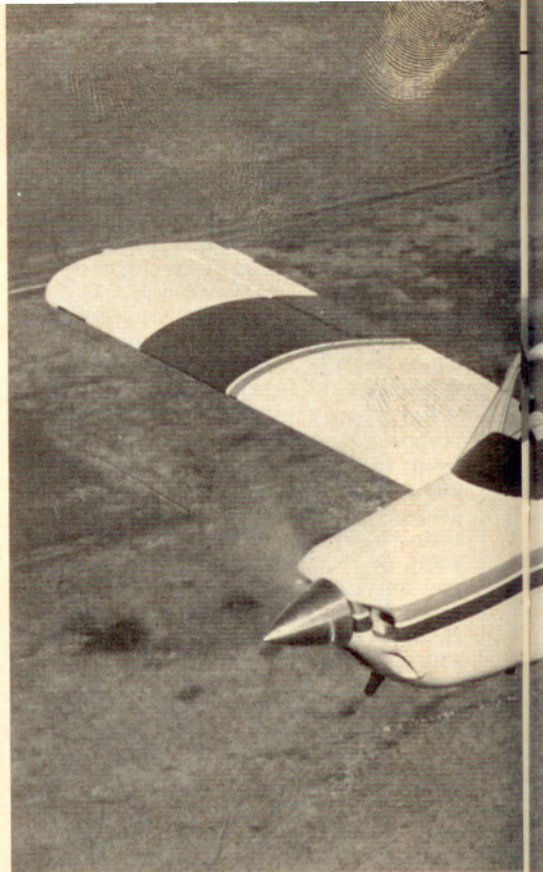
Since about mid-1971, Beech has installed multi-engine-style power-quad-

rant controls that are touch-coded as well as placarded for easy identification. The throttle is a smooth, cylindrical knob; the propeller control is ridged; and the mixture control is circular, with larger ridging. The new setup takes about five minutes to get used to, and some older Musketeer drivers may mourn the passing of the vernier throttle, which gives you the ability to make minute throttle corrections.

Beech has not made the mistake of making the levers too long, causing you to grasp the lever and prop your thumb against it to make small corrections that are difficult to make with a long lever, particularly in rough air. The levers are short and the throw is short, giving the pilot a total in-command control. Also, as they say in sports-car circles, the levers "fall to hand" nicely so there is no groping, nor does your arm get tired from being held in an unnatural and unsupported position.

The multi-engine system also eases transition problems when a pilot moves up to a twin. Beech, of course, has thought of this.

Cranking in 15 degrees of flap for takeoff uncovered a glitch. This particular bird was equipped with electric flaps that one sets according to a teeny Bonanza-style flap selector gauge, lo-



cated almost in front of the right-hand seat. Hard to see on the ground, it is even harder to see and read in low-level turbulent air while you're in the traffic pattern.

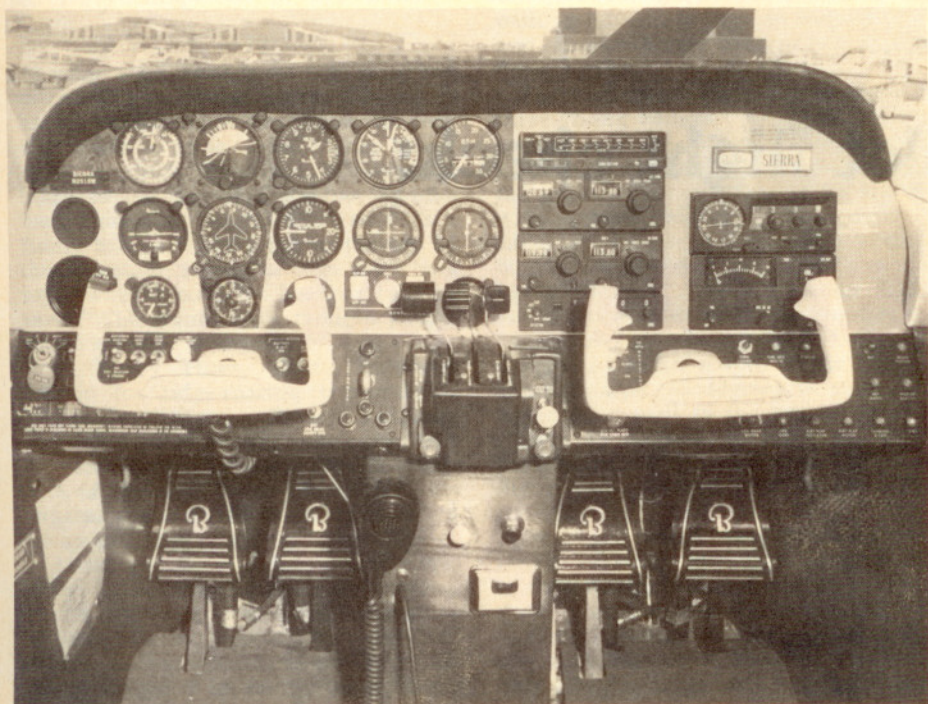
Manual flaps aren't elegant, but are effective. Barring that, let's see positioned flap selectors that can be set by feel, without diverting the pilot's eyes from the outside or the instruments.

Feeling slightly ATRish, I ran the throttle forward and we accelerated down Beech's runway and lifted off, rotating at about 70 to 75 mph. Best rate of climb is 92 mph; best angle of climb is 83 mph. Cruise climb speed of 110 mph is so shallow that a nearby bank of low clouds began to look a lot taller than it was eventually discovered to be.

Quelling an urge induced by the multi-engine power quadrant to growl "gear up," I retracted it myself, cleaned up the flaps, and made a quick turn to stay away from the resident KC-135 tankers—and an occasional F-105 fighter—that operate off nearby McConnell Air Force Base.

There is a lot of room in the Sierra—head room, leg room and shoulder room. And visibility, as noted earlier, is excellent. As Ramsey pointed out, there aren't too many low-wing airplanes that allow the pilot to look straight down. The Sierra's wing is set back a little, and with this feature, plus the big windshield and lowered panel, on a clear day you can see—well, almost forever.

The Sierra flies at such a seemingly nose-low attitude that it is difficult, until you get used to it, to trim the aircraft for cruise. The altimeter keeps wanting to go up and up. At cruise



The Sierra's well-laid-out panel, with big, easy-to-read dials, makes VFR or IFR flying a pleasant task. Controls of multi-engine-type power quadrant are touch-coded for easy identification.



## BEECH SIERRA 200

Specifications		Performance	
Engine	Lycoming IO-360-A1B, 200 hp	Top speed, sea level	161 mph
Propeller	76-inch, constant-speed	Cruise, 75% power, 7,000 ft	151 mph
Max ramp weight	2,758 lb	Range, 75% power, 7,000 ft (includes 45-min. reserve)	646 mi
Max takeoff weight	2,750 lb	Range, 55% power, 10,000 ft	682 mi
Empty weight	1,711 lb	Service ceiling	14,342 ft
Useful load	1,047 lb	Rate of climb, sea level	893 fpm
Baggage	270 lb	Takeoff over 50 ft	1,804 ft
Wing span	32 ft 9 in	Landing over 50 ft	1,519 ft
Wing area	146 sq ft	Stall speed, gear down, 35° flaps	63 mph
Length	25 ft 8½ in		
Height	8 ft 3 in		
Fuel capacity	52 gal		
Base price	\$26,550		

trim, until you get used to it, it seems as though you're going to fall forward out of your seat.

Power-off stall, clean, occurs at 74 mph indicated airspeed; dirty, it drops to 63 mph IAS. The Sierra is tame as a lamb in the stall, just wallowing around with plenty of aileron control left.

During a power-on stall, the nose seems to be pointing straight up in the air. With the break, you get a definite nose-down pitch.

On neither approach nor takeoff stalls, though, does the Sierra drop a wing. It is a tame and gentle ship, giving plenty of buffet warning, besides the stall horn blaring in your ear.

Ever since they were Musketeers, this line of Beech airplanes has had a roll rate that is a thing of delight, and

the Sierra 200 is no exception. They all seem to beg to go over on their backs when you crank in a steep turn.

If you ever need to get down in a hurry, the Sierra will do it. At 100 mph IAS, gear and flaps out, we came down at an ear-popping 2,000 fpm.

The Sierra's gear-extension speed is a high 155 mph, giving you the capability of maintaining high speed in a busy pattern and then slowing down quickly on final. Flaps can go out at 110 mph.

This particular airplane was equipped with a "Magic Hand" automatic landing-gear-extension system. When turned on, it places the manifold-pressure and pitot-pressure switches in series on circuit with an electromagnet that holds the landing-gear switch in the "up" position. When the manifold pressure de-

creases to about 18 inches and the airspeed to about 120 mph, the electromagnet releases and lets the spring-loaded gear-position switch go to the "down" position.

A shuttle valve has been added to the hydraulic system, permitting the fluid to evacuate the "retract" side of the system more rapidly, thus letting the gear down quicker than with the standard system. With the automatic system, it's virtually impossible to land with the gear up.

The Sierra 200's optimum altitude is about 7,000 feet. There it cruises at about 150 mph, the book says. We didn't get there to make a speed check, but the speed checks we did make found the book and actual speeds to be quite close together. At 75% power, pulling 24 inches and 2,500 rpm, we had a true airspeed of 145 to 146 mph. At 65% power, TAS dropped to 136 mph, and at 55% we tried at 126 mph.

In this day of fuel shortages, it may be comforting to know that the Sierra, at 75% power and 5,500 feet, burns 10.2 gallons per hour and does close to 150 mph, which translates to 15 miles per gallon.

The Sierra lists for \$26,550, and the pricing is somewhat of a departure from normal Beech pricing. Usually Beech throws a radio and a couple of goodies in, making for a higher base price. But since the Light Aircraft Division folks are in a slightly different league from the Bonanza, Baron, Duke and King Air salesmen, they list the aircraft bare so their advertised price will be more in line with the competition.

Optional equipment packages—the Weekender (\$554), the Holiday (\$1,875), and the Professional (\$2,635)—are available. Basic fly-around avionics cost \$1,786 for the Narco package, or \$2,200 for the King. But if you want instrument capability, the Narco packages range from \$5,035 to \$8,827 and the King from \$4,395 to \$7,195. The offered Narco radios have 360-channel capability, while the King radios are 720-channel.

So if you take the basic \$26,550 and add the Professional package, at \$2,635, and the top King package (which includes a Mitchell II autopilot), at \$7,195, you have a \$36,380 airplane.

The Sierra 200 costs a bit more than some singles, and a little less than others. With it, you can have a comfortable four-place airplane that looks nice, inside and out, to use for fast, efficient business travel during the week, and to take the family on a vacation on the weekend—maybe to the high Sierra. □