

Plane & Pilot

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how to be
a safe
pilot!



WHAT MAKES THE BELLANCA VIKING GREAT

Pilot Reports:

PIPER'S PA-20 PACER

AERO COMMANDER'S
SPEEDY 200

NEW TECHNOLOGY
AND THE LIGHTPLANE

AIR EDUCATION - Part II

New Pressurized
SKYMASTER



Bigger Engines,
More Speed

Plane & Pilot

VOLUME 8 NUMBER 11 NOVEMBER 1972

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ON THE COVER - Bellanca's 1972 Viking, a top short-field performer even at altitude, was photographed by Dick Gibson during a flight to California's Big Bear Lake airport (6,750 msl). The inset is Cessna's newest Skymaster, with bigger engines and cabin pressurization. Stories on Pages 14 and 38, respectively.

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COMMANDER 200 Still out in front



**IT'S THE FASTEST UNBLOWN
PRODUCTION LIGHT PLANE,
AND ONE OF THE SEXIEST, TOO!**

By **BILL COX**

THERE ARE A few airplanes for which nearly all pilots harbor an unspoken desire — airplanes that generate a strong charisma beyond price, comfort or performance.

For me, one of those airplanes always has been the Aero Commander 200. Since I was a high school kid swapping wash jobs for rides in CAP Cubs and Navions, the then — Meyers 200 commanded far more attention than did Bonanzas, Comanches or 210's. Perhaps it was the eager, fighter-fast looks alone that endeared the airplane, or it could have been the Walter Mitty in all of us that made me want someday to fly the fastest non-turbocharged, single-engine, prop light-plane in America. (Significantly, 13 years later, the long since out-of-production 200 *still* is the fastest in its class.)

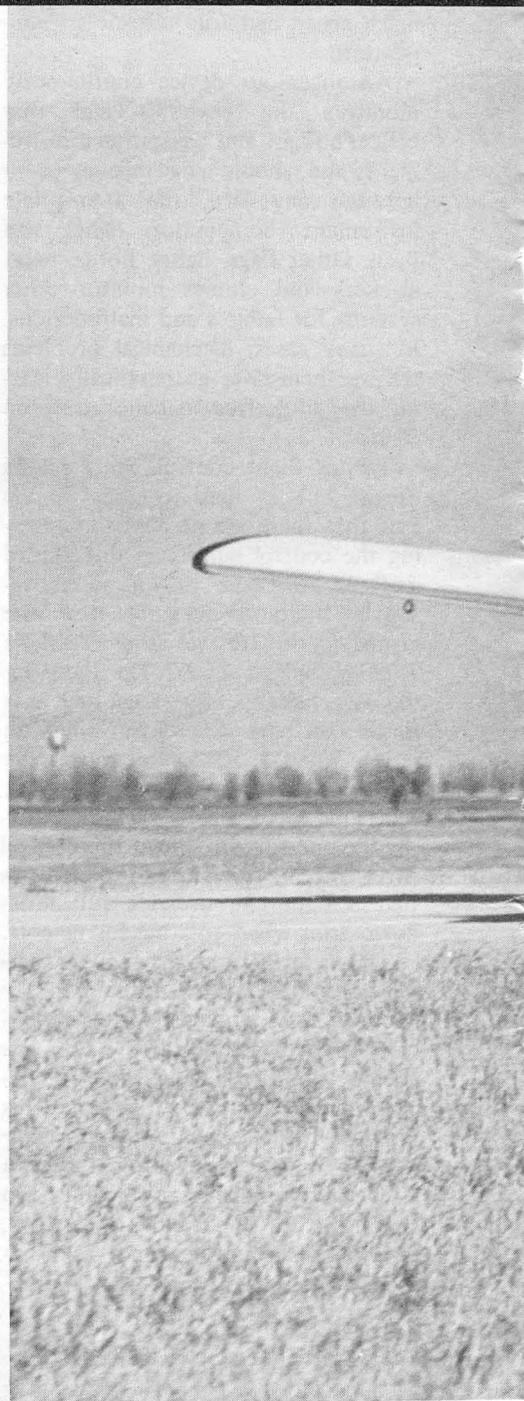
Whatever the attraction, I looked forward to flying the Aero Commander 200 with considerably more than the normal amount of anticipation. When *PLANE & PILOT* suggested I contact Norm & Joyce Hibbard for a test report on their incomparably clean '67 model, a long-held ambition was satisfied.

The Hibbards are aircraft brokers who handle everything with wings from their Oakland, California, office but specialize in the speedy little Aero Commander. Norm sells jets and twins

while Joyce manages single-engine sales. Hibbard Aviation is the only dealer who specializes in the 200, primarily because, despite the sexy looks and hot performance, there are few of the airplanes available to sell; a surprising situation in view of the airplane's reception in 1958.

When Meyers brought out its world-beater 200, the aviation press and public sat up and took notice. The airplane was heralded as a superbird for the businessman who needed a fast, comfortable transportation machine but who wasn't willing to sacrifice weekend fun capability for business utility. Despite the moderate hoopla that surrounded the first version of the 200, the anticipated droves of buyers failed to materialize. When Rockwell Standard Corporation purchased all rights to the airplane in July, 1965, only 44 Meyers 200's had been delivered. As it turned out, Rockwell's Aero Commander division had little better luck, building only 85 more airplanes before shutting down production for good in 1967.

You might expect such a rare, high performance airplane to be treated like a well-used Porsche by its owners, but few of the airplanes have accumulated enough hours to be called well-used. The Hibbards' Commander has less than 550 hours total time and only 190 hours of those since major. Joyce





told me most of the Commanders they've sold show less than 500 hours, but some need certain minor service before sale.

The airplanes occasionally must be rigged to correct a slight left-wing-low condition. The plush front seats often are rebraced to a more upright position. Many of Hibbard Aviation's 200's also receive a paint job from Sun Aircraft of Phoenix, Arizona. The four 200's available for inspection on the ramp were excellent examples of the trouble Joyce goes to before marketing her favorite airplanes.

If you've been looking for a Commander 200 and plan to rush right down and take your pick of Joyce's four plush hot-rods, sorry, but only one is for sale (and even that one may be gone by the time you read this). Two are awaiting pickup by their new owners and the third is the Hibbards' personal airplane, a 1967 model named 2975T.

Painted a beautiful green and white, 75T is the kind of airplane most pilots dream about but never own. In every respect, it is an outstanding example of the breed, a professionally-maintained and flown airplane, owned by pilots who accept nothing less than the very best.

Joyce had final details to attend to on the sale of another 200 the day of my flight so Norm Hibbard agreed to serve as checkpilot.

Climbing aboard a Commander is a simple matter of one foot on the retractable step (complete with a flush-fitting step door, incidentally), one hand on the non-retractable chrome handle and one small hop onto the wingwalk. The cabin door opens wide to reveal posh accoutrements the likes of which you've come to expect only from Bellanca Viking 300's. Everything is double-padded and luxurious. In fact, the 200's interior has a startling resemblance to that of a Mercedes.

Elbow room is more than adequate on the inboard side, but the outboard arm rests against the cabin wall if you're sitting square in the seat. It's a minor thing, but I would like to have seen both front bucket seats moved an inch or so toward each other to free up the left arm. Room in every other direction is Bonanza-size or better.

The panel on 75T sported just about everything one could ask for on a lightplane, including an Alcor Engine Analyzer with visual and aural mixture



Commander 200 remains the fastest non-turbocharged U.S. light aircraft.

warnings. All instruments are mounted on a black crackle finish with engine gauges to the right, radios down the center and flight instruments grouped directly in front of the pilot. The five-position fuel selector is mounted on the left side panel and reads fuel level in each of the four tanks through a single gauge that switches electrically with the selector valve.

Engine start is pretty much standard IO-520, with one interesting exception. As a guard against inadvertent gear retraction on the ground, Aero Commander wired the starter not to engage unless the gear lever is in the down position. Other airplanes have gravity locks that won't allow the gear to retract as long as there is weight depressing the struts, but a rut in the taxiway can fool that system by temporarily taking some of the weight off one gear and allowing the airplane to squat on two wheels and a wingtip.

Norm agreed to fly radio while I flew airplane, and we taxied out for takeoff. On the ground, the rudder pedals feel as if someone forgot to remove the gust lock. Fortunately, a minimum of travel gives maximum response, and there's little need for differential braking.

Pretakeoff checks are standard with one curious exception. The elevator trim is a vernier knob located slightly to the right of the prop control. Forward (clockwise) is down and backward is up. In flight, the control was fairly easy to use, but it was

necessary to take particular care to choose the right knob for power and trim adjustments. Throttle, prop and mixture also are vernier controlled.

Normal takeoffs are made with 20 degrees of flaps, an easy matter of keying the flap lever all the way down. The hydraulic pump will stop automatically at 20 degrees and reset for the second 20 which, of course, aren't used for takeoff.

As Norm had promised, unleashing 285 horsepower with one fell swoop of the throttle produces a sizeable amount of torque, but it's not a particular problem on the 200. The rudder pedal-connected nosewheel gives excellent control. Acceleration is particularly strong with each horsepower having to launch only 10.5 pounds of airplane into the air. Even today, five years after the 200 became one of aviation's almost-made-its, Bellanca's early Viking is the only single-engine production lightplane that has more power doing less work (at 10.0 pounds/horsepower).

Rotate speed of 75 comes up in 900 feet according to the book, and the airplane's distance requirement to clear the ubiquitous 50 foot obstacle is a meager 1,150 feet. A clean liftoff requires a firm, positive pull on the yoke to keep from skipping merrily down the runway, as I learned on my first takeoff.

The big gear lever comes out of its detent and through 30 degrees of arc to retract the gear. The two mains will

fold into the wells and wink green lights quickly, but the nose gear green stays off until the pilot drops the lever back to the center neutral position to shut off the hydraulic pump.

Norm instructed me to climb to best rate speed of 115 mph before retracting the flaps; then, suggested I readjust power to 25 inches and 2500 rpm and make a climbing downwind departure per our clearance.

Cleaning up the airplane had distracted from the 200's healthy climb performance, but a glance at the VSI showed we were ascending well over 1,400 fpm! As good as this was, cruise climb was an even better trade of speed for altitude. Once we'd cleared the pattern south of Oakland, I trimmed the nose down for an indicated 150 mph and still showed 1,000

fpm climb. At this rate, it took just over five minutes to reach our cruising altitude of 5,500 feet.

I'd always been dazzled by the Aero Commander's speed claims, and soon learned the numbers quoted weren't exaggerations. Setting power at 23 inches and 2375 rpm for 65 per cent cruise, 75T showed 177 for a true 200 mph. About this time Norm pointed to the VSI which was indicating an embarrassing 100 fpm climb. Trimmed up right the second time, indicated and true came out to 180 and 205 respectively. Remember, that's 65 per cent power. The factory claim of 210 at 75 per cent seems more than reasonable though the lower setting costs only 14 gallons an hour.

By the time I was through marveling at the thrill of pure speed, we'd passed

Monterey 80 miles south of Oakland. I'd love to have flown the Hibbards' airplane all the way to Acapulco, but an editorial deadline overruled a long cross-country. Just the same, with all four 20-gallon tanks full, the Aero Commander could have ranged out 1,100 miles with a 20 minute reserve.

Somewhat surprisingly, the 200's ailerons are anything but light in turns. In fact, they're downright stiff. The yoke rotates only 30 degrees in either direction for full aileron deflection, however, so the heaviness isn't uncomfortable. Perhaps because of the stiffness, steep turns are rock solid, though altitude control takes some practice. The elevators are extremely fast and sensitive. At first, I had a tendency to dive to the left and climb to the right,

Continued on page 72



The 200 evolved from the Meyers line of two-seat taildraggers and went on to a short, glamorous production life.

Most 200's are liberally equipped, and the wide, deep panel has plenty of room for all the gear you'd want.

AERO COMMANDER 200
Specifications and Performance

Wing Span, ft. . . . .	.30'6"
Length, Ft. . . . .	.24'4"
Height, ft. . . . .	.7'4"
Gross Weight, lbs. . . . .	.3,000
Empty Weight, lbs. . . . .	.1,985
Engine, . . . . .	.Continental IO-520A
Horsepower	285 @ 2600
Fuel Capacity, gal.	80
Wing Load, lbs/sq. ft. . . . .	.18.75
Power Load, lbs/hp	10.5
Top Speed, mph . . . . .	.216
Cruise Speed, 75% . . . . .	.210
Range, max. st.mi. . . . .	.1,170
Rate of Climb, fpm . . . . .	.1,450
Service Ceiling, ft. . . . .	.18,500
Takeoff Over 50 ft. . . . .	.1,150
Landing Over 50 ft. . . . .	.1,150
Stall Speed, landing mph.	54
Used Price . . . . .	.\$18,000-\$24,000



COMMANDER 200

Continued from page 25

but five minutes of practice had me coordinating 720 degree turns through the reassuring bump of my own wake.

With windows everywhere, the 200 offers wrap-around visibility befitting its sportsplane looks. A wide, metal frame down the top of the fuselage gives the plexiglas a place to mount and limits visibility straight up, but that and the wing are the only two restrictions to three-dimensional all-around vision.

It might seem that this much glass would result in an intolerable cockpit temperature in hot weather, but Aero Commander cleverly installed nine air vents to keep things cool. During my flight, OAT never dropped much below 80 degrees F but the cabin remained comfortable.

I knew it eventually would be necessary to land the Commander and elected to check out stall characteristics prior to returning to Oakland. The 200 has one of the widest green arcs of any light airplane I've flown, with a yellow line starting at 210 mph and a bottom green of 77. Probably because of airspeed error at the high angle of attack, I showed 65 mph before the break with the underwing clean and 55 mph with everything hung out to drag. In all cases, the stall was tame and easily predictable. What was more important, ailerons alone were adequate to control what little roll tendency there was. At a low 80 mph short field pattern speed with full flaps and gear down, rolls from 60 degrees left to a like amount right felt comfortable and safe.

The landing itself was an anticlimax. The Commander definitely is a power-on airplane during approach, but the right power settings make landings ridiculously easy. After an appropriate transponder squawk on code 1200, Oakland approach control vectored us for a straight-in to runway 27R. While we were still boring downhill at 170 mph, Norm casually reached over and swung the gear lever to the full down position. I've had checkpilots demonstrate this trick several times before in various Bonanzas, but I never have become used to it. Predictably, the Commander slowed down in a hurry, and Norm had me set power to hold 120 mph for the outer final. He said the emergency extension speed is 210 mph in the event you need to slow in an even bigger hurry.

One feature of the Commander every pilot would appreciate is the self-trimming flaps. Elevators and flaps are interconnected by a bungee-spring that automatically rolls back the yoke to compensate for dropping the Fowler-type flaps. Norm talked me through the approach using little more than a single power setting and the flap lever.

With full flaps and 90 mph, the Commander settled semi-smoothly onto the numbers the first time around, as if to prove how easy it is to land. For some reason, I had a tendency to flare slightly high on all landings but managed a decent touchdown each time by playing the airplane through the flare to the ground. Four touch-and-gos later, that cursed editorial deadline stared back at me from my watch, and I reluctantly taxied back to the ramp.

Perhaps an automatic tendency when testing a hot performer such as the Aero Commander 200 is to accentuate the positive and eliminate the negative. Actually, there's not a lot of negative to eliminate. The trim control system seems pointlessly unconventional in light of other companies' more acceptable arrangements. Rudder trim isn't available on Commanders and the aileron trim on the airplane I flew (another knob on the panel) didn't work very well. With full tanks, Commanders are load limited to only 475 pounds of people or whatever (though, excluding the pilots, the load may be distributed in the entire rear portion of the airplane simply by unlocking eight fasteners and removing the seats). Put all of the Commander's drawbacks together, however, and they make hardly a dent in the airplane's otherwise excellent characteristics. The inevitable comparison is to the Bonanza and this pilot feels the Commander comes out a winner in pure dollar-for-dollar value and performance.

One of the prime axioms of aircraft design is that the science is one of give and take, a series of compromises between speed, comfort, climb, range, useful load, runway requirements, etc. In this respect, the Commander probably comes close to being the ultimate light-airplane. Had it not been for a fickle pilot-public and the unpredictable vagaries of the aircraft industry, the 200 well might have been the sales winner that Aero Commander hopes its new 112 will be. □