

# CLASSIC SPEEDSTER— AERO COMMANDER 200

Al Meyers' efficient retractable was 15 years ahead of its time . . .

by Bill Cox

Photographs by Bill and Pat Cox

**F**ROM A DISTANCE, on a ramp by itself without perspective, the airplane looks very much like a Navion. The wrap-around plexiglass roof looks for all the world like a sliding canopy, and the fuselage contour definitely is reminiscent of North American's post-war retractable.

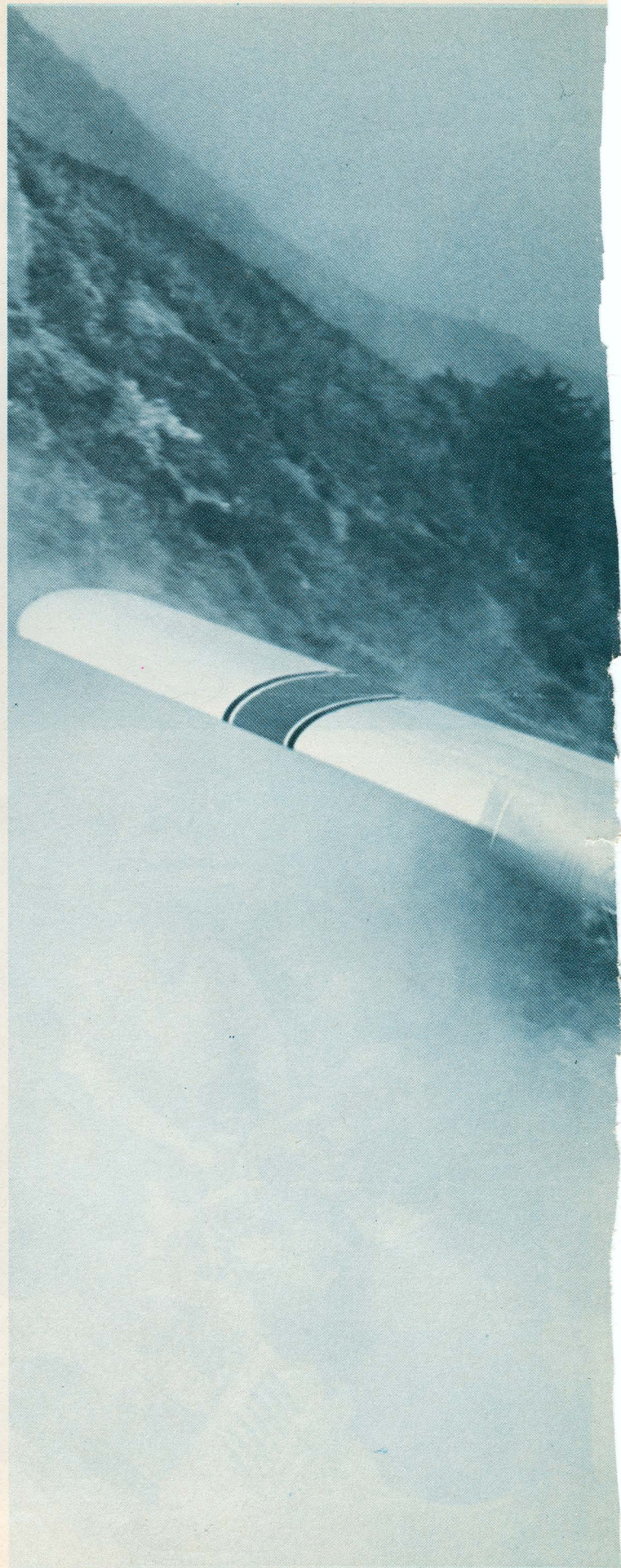
A closer inspection reveals some differences. Walk up and lay an arm across the cowling, something no Navion owner short of 7-feet, 5-inches tall could do. Examine the smooth, quick fairing of canopy to fuselage and the strong yet somehow delicate tapered wing. The machine generates a feeling of speed restrained only by power, not by drag.

For the uninitiated, the revelation that this is an Aero Commander may come as something of a shock. Despite the company's recent venture into the 112 design, Commanders have traditionally hung between two engines, cost gobs of money and been driven by professional pilots.

Yet the Aero Commander 200, not quite gone but nearly forgotten, remains as a memento of that company's first serious plunge into single engine production . . . and, as it turned out, its first serious mistake.

Al Meyers didn't think it was a mistake in 1954 when he designed what he hoped would become the fastest single-engine lightplane in America. After four years of gestation, the prototype finally emerged in 1958 as a successor to the efficient Meyers 145 of the early '50s. That trim little two-place taildragger turned in 145 mph on as many horsepower. The 200 retained the earlier airplane's lean look, but mounted a nosewheel rather than a tailwheel, a 240-horsepower Continental instead of the 145 and four seats rather than two. In 1959, power was increased to 260 horsepower, and a total of 44 of these airplanes were delivered between 1959 and 1965 from the small Meyers factory at Tecumseh, Michigan.

Rockwell Standard acquired all rights to the Meyers 200 in July, 1965, and moved production to its Aero Commander Division facility in Albany, Georgia. The new owner upped the horses to 285 and the price to \$29,500, but its sales luck with the airplane wasn't as good as Al Meyers'. Production was discontinued after only 85 Aero Commander 200s had been built.









# COMMANDER 200

Why did the 200 fail if it was such a world-beater in performance? It may have been that the market already glutted by "established" retractables such as the Bonanza, Bellanca, Piper Comanche, Mooney Super 21 and Cessna 210 had no room for a comparatively unproved newcomer. In order for its price to be competitive, Rockwell may have had to underwrite too great a loss on the first airplanes produced and figure break-even was too far over the horizon.

Whatever the cause, the 200 expired ungracefully in 1967.

Perhaps because of its relative failure in '67, the 200 today is an extremely valuable item on the used plane market. With so few airplanes available for sale, the law of supply and demand keeps prices up. A 200 in good condition with typical IFR avionics brings \$20,000 to \$25,000. There's no telling how much a jewel like the PRIVATE PILOT test airplane would cost, but owner Don Coniglio of Pomona, California, admits he has more than \$25,000 in the airplane now.

Don bought Commander 2969T as a basically sound but run out rebuilding project for \$15,000. He paid \$4,500 for a new engine, \$1,000 each for paint and upholstery, and another \$3,000 for radios.

When he was finished, he had a fast, comfortable, good-looking, fully-equipped IFR machine that was the envy of every pilot at Brackett Airport where Don hangs his gem.

Despite Don's excellent job of restoration, Commander 2969T is perhaps typical of the design's capabilities as well as its disabilities.

Climbing aboard requires a short hop onto the wing walk via a step and a garish chrome hand grip apparently left over from the '51 Hudson. Though it's a minor complaint, the hand grip is ridiculously out of place on an otherwise clean airplane.

Once inside, the cockpit layout is fairly conventional with one curious exception. What looks like a fourth power control clustered right in with the throttle, mixture and prop knobs turn out to be the elevator trim. Rotating the knob clockwise into the panel trims the nose down, whereas a counterclockwise movement brings the nose up. Ray Betzoldt, former test pilot for Meyers, claims credit (or blame) for this idea, and, perhaps, as Ray promised in 1959 "... let a guy fly this for 15 hours and he'll fall in love with it." It was difficult to judge the merits of such an unusual trim system in the two hours the airplane was flown. The only intelligent comment possible from such short exposure is that the system allows extreme fine tuning as long as a pilot remembers which knob is which. With four knobs available instead of three, it's easy to grab the trim in place of the prop control or vice versa.

The remainder of the panel arrangement is above average or better, mostly better. Instruments are professionally grouped with all the right dials together. Like its twin engine counterparts, the Commander 200 has one of the most logical panels in its class.

It also has one of the most comfortable cabins of any four-place single. The interior looks as if it might have been copied from a Mercedes 300. Seats are overstuffed and plush, and front seat room is more reminiscent of a 182's rather than a slim-bodied 200+ mph hotrod. Because the fastback roof design tucks down and in toward the rear, room in the backseat isn't quite so generous, though it still is ade-

quate for most normal-sized passengers.

Engine start is typical Continental IO-520 after the pilot double-checks the gear position selector. If the selector has been accidentally tripped to "up," the electrical engine-start circuit is interrupted, and the starter won't engage until the gear lever goes to the down position. In other words, if the engine starts, the gear is guaranteed to be locked down.

Some pilots also might think the rudder pedals are locked when taxiing. Steering is ponderous and heavy, and differential braking is an absolute necessity to make even moderately sharp turns.

Despite its heavy rudders, the 200 is a very light airplane. At its gross weight of 3,000 pounds, the 200 is the lightest production single to use the 285 Lycoming, and that fact becomes obvious when the throttle goes forward for takeoff. Leading throttle application with lots of right rudder helps minimize the P-factor, but it's difficult to understand why neither Meyers nor Aero Commander equipped the airplane with rudder trim. During takeoff and, later, in climb, the 200 demands an uncomfortable amount of pedal pressure to keep the ball centered. Proper takeoff technique dictates forward pressure on the yoke to keep the airplane at optimum attitude for maximum acceleration. Rotation at 75 requires a firm heave on the yoke to "pop" the airplane into the air. Then it tends to settle for the first few hundred feet after lift-off and is best left to accelerate to best rate speed before pointing the nose up.

Gear retraction requires muscling a huge aluminum lever out of its down detent and arcing it through a foot of travel to the "up" position. A thousand pounds of hydraulic pressure pumps the wheels into the wells and retracts takeoff flaps (20 degrees) before the gear lever may be dropped to the neutral, pump-off position.

As is nearly everything else about the 200, the climb is impressive. Best rate speed of 115 mph produces 1,200 fpm with two pilots up front and full fuel. Unscrew the power to 25 square and the Commander still ascends at better than 1,000 fpm. Perhaps the best trade-off between horizontal and vertical speed is a cruise climb at 150 mph that delivers an initial 700 fpm. Visibility at the flatter climb angle is so good and the nose so low on the horizon, it almost looks as if the Commander is cruising rather than climbing.



This illusion makes trimming for cruise a frustrating experience for a new 200 pilot. The tendency is to trim the airplane to what looks like straight and level, then, discover the VSI still shows 100 fpm up. The final cruise attitude can be confirmed by laying the wingtips level on the horizon, because most pilots never will believe the nose angle.

They'd best not disbelieve the cruise speed, however. As previously mentioned, the 200's main claim to fame has always been its ability to hustle cross-country faster than anything else with one unblown engine up front. Mr. Meyers didn't name the airplane the 200 as an idle boast. While a 200 mph cruise certainly isn't unique to the Commander, there



Though a tight, trim airplane in most respects, the Commander 200 has reasonable access to necessary areas. At left, owner Don Coniglio opens the door right over the oil dipstick. Above, the baggage hatch is just aft of the wing where it can be easily loaded or unloaded. Below, the single passenger door is wide enough for easy entry into the rear seats. Note towel rack assist handle.

are few other airplanes that achieve such speed so effortlessly. Don says he regularly uses power settings between 55 and 65 percent to keep fuel consumption in check and still manages nearly 200 mph. During the flight evaluation, 65 percent power resulted in 174 mph indicated for a true 198 mph. Sticking everything to the wall for a maximum cruise check at 8,500 feet, the Commander indicated and trued 182 and 206, respectively.

Now 206 mph is a bunch of speed for a single-engine, four-place lightplane. In fact, it's a good three mph ahead of the second-fastest single, the V-35 Bonanza (which, incidentally, uses the same engine). At 10.5 pounds per horsepower, the Commander's lighter gross weight gives it a better power-to-weight ratio than that of the V-tail, though not as good as the Viking 300's 10.0 rating. Another reason for the Commander's speed is its comparatively short wing. At 30 feet, 6 inches, it checks in three feet short of the Bonanza's reach and four feet shy of the Viking's span. Combine these features with such aerodynamic niceties as a fastback fuselage that minimizes the "wetted" area aft of the passenger compartment, semi-fowler flaps which fair smoothly into the wing and a retractable passenger step complete with its own door, and it's not too difficult to understand the Commander's speed.

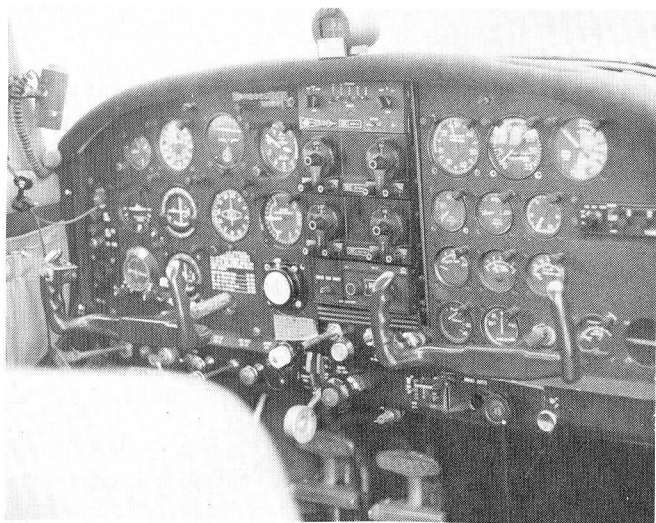
Unfortunately, the Commander's controls are less than the promise of its fighter-fast looks and superslick aerodynamics. The rudders don't loosen up much in the air, and the ailerons are extremely heavy. Conversely, control displacement for a given bank angle is small, probably the least of any production lightplane in America. The yoke travels only 45 degrees from horizontal to the stop, so any pilot with strong biceps can realize very quick roll rates.

So quick, in fact, that a new 200 pilot's first localizer approach probably would involve a series of S-turns. The Commander's stability is so impressive, however, that it





# COMMANDER 200



Commander 200 panel is well laid out for IFR use, has plenty of space for instruments and avionics.

## 1967 AERO COMMANDER 200

### Price:

New: \$29,500, FAF, Albany, Georgia.

Used: \$20,000 - \$25,000.

### External Dimensions:

Wingspan .....	30 ft., 6 in.
Wing area .....	161.5 sq. ft.
Length overall .....	24 ft., 4 in.
Height overall .....	7 ft., 4 in.

### Weights & Loading:

Empty weight .....	1940 lb.
Gross weight .....	3000 lb.
Useful load .....	1060 lb.
Payload (full fuel & oil) .....	560 lb.
Power loading .....	10.5 lb./hp
Wing loading .....	18.8 lb./sq. ft.
Fuel capacity .....	80 gal.
Baggage .....	200 lb.
Seats .....	4

### Power Unit:

Continental, fuel injected IO-520A, 285 hp @ 2,650 rpm.

### Propeller:

McCaughey, metal, constant-speed, two blade.

### Performance:

Maximum speed, gross, sea level .....	215 mph
Cruise speed, 75% power .....	210 mph
Stall, clean (power off) .....	67 mph
Stall, gear & flaps down (power off) .....	54 mph
Rate of climb, gross, sea level .....	1,400 fpm
Service ceiling .....	18,500 ft.
Takeoff ground roll .....	900 ft.
Takeoff over 50-ft. obstacle .....	1,150 ft.
Landing ground roll .....	700 ft.
Landing over 50-ft. obstacle .....	1,150 ft.
Range, maximum cruise .....	1,170 sm

would undoubtedly make a good IFR airplane once control response became familiar. Stability is excellent on every axis if a pilot is alert enough to ride the trim with each change in power or attitude.

Every airplane has its Achilles' wing, and the 200's primary hangup is a low payload. With all four 20-gallon tanks full, the seemingly adequate 1,060 pound useful load shrinks to 560 pounds, not even enough to haul four "standard" size people. The fuel load must be cut to 63 gallons to allow filling all seats.

Things aren't quite as bad as they seem, however. The original Meyers 200 was certificated in 1959 with a 240 horsepower engine to haul 3,000 pounds, and that's still the maximum gross, though engine power has climbed to 285 horsepower. The strong climb performance and wide CG range are proof the 200 could probably handle more weight with the 285 engine. A 100-pound overload isn't uncommon, even if it is illegal, and one Commander was modified to carry 480 gallons of fuel for transoceanic flights. According to the numbers, that's about 2,000 pounds over gross.

In other words, the 200 has a healthy safety margin at its certified maximum gross weight. If it's absolutely necessary to fill all the seats and blast off to lost horizons, the fuel allowance still is enough to provide a four-hour range plus reserve at nearly 200 mph.

While load flexibility isn't one of the 200's strong points, speed control is. When it comes time to descend, the gear can be put out as fast as 170 mph, though it's doubtful many owners deliberately would throw the wheels into that fast an airstream. The net effect of dropping the airplane's gear at 170 is a hellacious grinding roar that sounds as if the whole mechanism just tore loose from the wing. (It's difficult to imagine what gear extension must sound like at the published "emergency" maximum of 210 mph.) Because indicated airspeed seldom climbs much above 180 or so, a pilot could extend the gear almost any time he felt the need. According to Don, the only consequence of such a rash action might be a bent door or two. He makes it a habit to use a more sane 140 mph as maximum gear speed and still benefits by using the gear as a speed brake.

Slowing the Commander from cruise to pattern speed, even with the gear out, takes a little more planning than in a slower airplane. The 200 is a very clean machine that obviously is happiest at high cruise. When things finally do calm down to 100 mph, the airplane's control response remains hard but fast.

The 200's short wing might be expected to stop flying sooner than the competition, but it hangs in there to an advertised 54 mph down and dirty before giving up the last of its lift. It's inconceivable any pilot could get slowed up and fail to recognize an impending stall in a 200. Aerodynamic warning within ten mph of the stall is vigorous and easily recognizable. The break itself is abrupt but wings level as long as the rudder is centered, so even the densest pilot should be able to recover from an inadvertent stall.

Patterns seem to work out best at 90 to 100 through downwind and base, slowing to 85 mph with the usual 15 inches of manifold pressure over the fence. Like many high performance retractables, the Commander is best driven down final power-on to avoid a high sink rate. 75 to 80 mph and power full back on final will assure a very short flare and touchdown.

In all, it's difficult to fault the 200 in any area of performance. The Commander design, like all other lightplanes, represents a compromise between looks, speed, comfort, range, climb, useful load, runway requirements, fuel economy, etc. There's little doubt the 200 is a winner in the speed department, and the compromises necessary to achieve that speed appear to have been minimal.