CESSNA 180

# JACK OF ALL TRADES

## *Forty years old and still looking good*

BY MICHAEL MAYA CHARLES

**1953** was a time of transition and contrasts in aviation: In Wichita, Beech Aircraft was building the sassy, slick, and speedy V-tail Bonanza while Piper's J–3 Cub was barely out of production in Lock Haven, Pennsylvania; a new 108-horsepower version, called the "Super" Cub, replaced it. In 1953, seven-year-old 1946 Model J–3s would be the age equivalent of the last production Cessna singles built in 1986. ■ Piper's answer to Cessna's best-selling 170 was the "Quiet" Tri-Pacer. With tube and fabric fuselage and a 135-hp Lycoming, the quiet came from "stainless steel exhaust and 'sound conditioning,' " according to Piper's ads. Piper's all-

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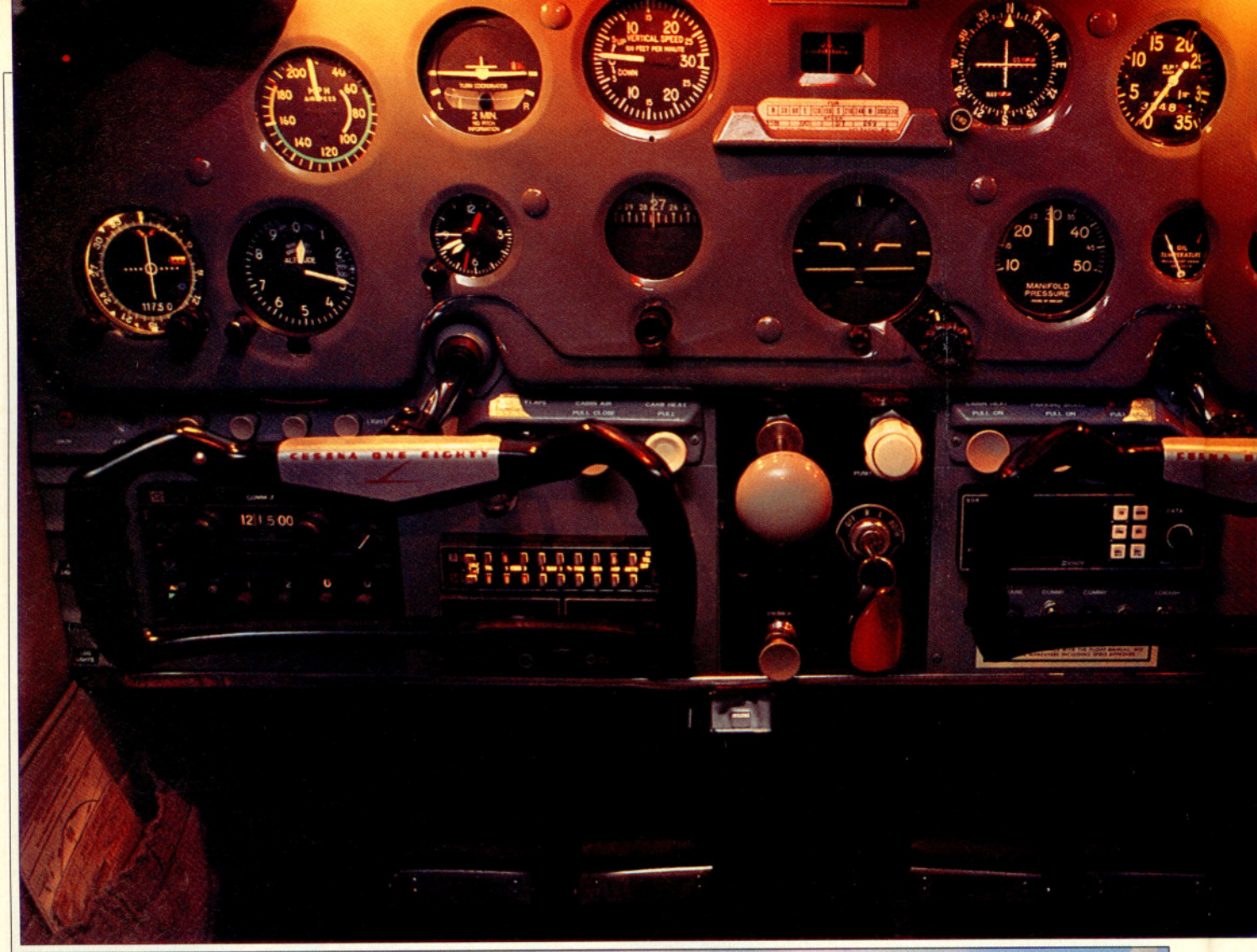
CESSNA ONE EIGHTY
MANIFOLD PRESSURE


N794C

*Though proclaimed by Cessna in 1953 as a business traveler, the 180 made its reputation as a utility machine thanks to sturdy simplicity.*


metal twin, the Apache (first of a whole tribe with Indian names), was in flight-test in 1953.

Cessna had its twin-engine 310 in flight-test, too, but it was far busier building all-metal, high-wing airplanes in 1953—though not one of them had a nosewheel. Its basic high-wing, all-metal monocoque design would grow into an entire family of singles, remaining virtually unchanged until production ceased in 1986. The lineup in 1953 included the 170B, "America's largest selling private plane," and the 190/195, a "luxurious 4–5 place executive plane—America's greatest bargain in business transportation."

Cessna ads proclaimed 1953 as the "Golden Year of Flying" (50 years since the Wright brothers made their first flight). Amidst all the fanfare, a new model was proudly introduced, called the 180.

Basically a beefed-up 170 with 80 more horses, it was an exciting new airplane "from the spinner on the nose to the new 'square' tail design which was adapted from jet aircraft." The 180 was originally heralded by Cessna's marketing folks as "the businessman's airplane," but the airplane quickly gained a reputation for solid dependability and utility in the back country. Over the years, Cessna built 6,193 of them.

In Alaska, where livelihoods and lives depend on airplanes, the 180's reliability and utility made it about as common as long winters. On wheels, floats, or skis, there are more Model 180s in Alaska than in any other state.

"You always make it back in a 180," says Bud Morrison, of Woodland, Washington, who figures he has 10,000 hours in 180s and 185s. "It's got manual flaps, a simple carburetor—not fuel injection—and no fussy electronics or systems to break down in the boonies." Morrison is building an improved homebuilt version of the 180, called the Liberty 181, and hopes to market it as a kit next year.

Buz Landry, president of the International 180/185 Club, a group of 1,480 owners in 23 countries (you have to own one of the two types to join), calls the 180 "the most versatile aircraft ever designed. It flies fairly quickly, carries a good load, and can operate out of most rough and short strips."

When looking for a 180 to call my own, I listened to a lot of owners and their stories. I caught up with one adventurous retired couple with their 180 at Oshkosh last summer. They told me they loved their Skywagon, flew it everywhere, and couldn't imagine owning anything else. Their previous pet, a Cessna 195, had been fun—but required a lot more maintenance and fussing. "All we do with the 180 is put gas in it and go," they said.

Just before I bought my 180, I nearly fell for its slightly older sibling, the Airmaster. Strutless, sleek, and sexy, with the graceful curves of a thoroughbred, the Airmaster reeked of romance and nostalgia for the 1930s and 1940s, a time I will never really know. With its 165-hp Warner Scarab—30 percent fewer horses than the 180—the Airmaster is only perhaps 15 knots slower.

But like all efficient airplanes, it pays for that remarkable speed with sacrifices in cabin comfort. When I flew the Airmaster, the cabin was hot, noisy, and cramped. The old pelican flew as if someone had left the aileron control locks on. It was truly an airplane from a simpler aerodynamic era; it's hard to believe an airplane so radically different from the 180 was built by the same company a little more than 10 years before.

So what's so macho about the 180? The very configuration that enables it to operate from short, unimproved strips demands a price: that broad, uppity tail and long fuselage require more attention to the centerline during takeoff and landing than its nosewheel-equipped modern sibling, the 182 Skylane. But rudder control is always adequate. I can recall only one flight when I wished for more rudder: a day when the crosswind was gusting to 50 knots. I probably should have left the airplane tied to the ramp that day.

Takeoffs can be accomplished either in the three-point attitude or up on the mains in the wheel attitude; winds dictate the choice. In gusty crosswinds, the tailwheel can be left on the ground, where it improves steering. In more benign flying weather, the tail can be raised earlier to reduce drag and improve over-the-nose visibility. Flaps are normally left up for takeoff but can be extended 10 degrees for a shorter ground run.

Most of my landings in the 180 are wheel landings. I find this gives me more precise control over the touchdown, especially if the wind is across

made, along with the Super Cub," according to Wardleigh and others I talked to. Wardleigh's favorite story about the 180 skiplane is his personal tale of taking off once in waist-deep snow. He had flown a mechanic and his tools into a strip to remove the engine from a Cessna 140. Loading engine, mechanic, and toolbox back into the 180, he decided to try taxiing. To his surprise, the airplane moved well—so he just took off. Temperature was a face-numbing minus 50 degrees Fahrenheit.

Gross weight of the 180 steadily increased over the years, as did the empty weight. My airplane is light at 1,625 pounds empty; it grosses at 2,550. Later versions increased in increments to 2,800 pounds gross and average around 1,800 pounds empty. There's a supplemental type certificate available to raise the gross to 3,190 pounds.

The Continental 225-hp engine that powered the first 180 was not a great engine. Cooling was a problem, and many 180 owners have upgraded their engines with newer versions. The best engines seem to be the K, L, and R models, depending upon whom you ask. My airplane has an L engine from an early 1960s Cessna 182.

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Brakes were a problem on some airplanes, too, but those upgraded with Cleveland systems seem to have few difficulties.

Though the 180 airframe has never had a structural airworthiness directive, its weakness is the landing-gear box structure that attaches gear legs to airframe. Many 180s (mine included) have been damaged when a careless pilot mishandled a crosswind and ground looped, causing the gear to collapse beneath the fuselage. Before buying a 180, check this area carefully for previous damage. Correct repairs are more important than damage history. A beef-up for the landing-gear box is available from P. Ponk Aviation, 1212 North Moore Road, Camano Island, Washington 98292; telephone 206/629-4812.

Cessna changed the rake of the landing gear in 1955, increasing the wheelbase slightly for better control and brake effectiveness, but the airplanes still have more landing gear incidents than, say, a 182.

A few times when the weather was foul, I would have offered my kingdom for a little more dead dinosaur juice in the 180's tanks. With 55 gallons of

usable fuel, the standard tanks run dry in a little over four hours at 75 percent. Because the direct-reading float-type gas gauges installed in the wing root of each tank on early models are nearly worthless, I regularly fly my 180 about three hours to still have comfortable VFR reserves sloshing in my tanks. With headwinds and a distant IFR alternate, cross-country range can be quite short, between 300 and 500 miles. Beginning with the 1961 model, Cessna offered 84-gallon tanks for longer range. Several companies now offer additional tanks for installation either in the wings or on the baggage compartment floor.

There have been times I've wished for another 30 knots cruise speed in my 180, too, especially on days I'm heading southwest into a strong breeze. But then, don't we all wish we had another 30 knots of speed?

In 1961, the 180 was joined by a higher powered sibling, called the 185. It featured a larger tail; some structural beef-up, including stronger axles and landing gear; and seating for six. The 185's engine was initially the 260-hp injected Continental IO-470 but was replaced with a 300-hp IO-520 in 1966 for even better performance. Sales of the 185 eventually eclipsed the 180, and the lower powered Skywagon was dropped from production in 1981.

Last summer, my wife, daughter, and I packed clothes, cameras, and camping gear into our 180 and wandered for several weeks through Kansas, Colorado, and New Mexico—then flew east to Oshkosh.

We searched for out-of-the-way strips to camp for the night. One we found was Cauker City, Kansas. A deserted grass strip nearly ending on the lonely main street that divides the center of a small prairie town, it was a perfect place for a 180.

**Cessna 180**
Current market value: $40,000–$45,000

**Specifications**

| | |
|---|---|
| Powerplant | Continental O-470L (w/STC) |
| Recommended TBO | 1,500 hr |
| Propeller | McCauley 2A36C18/90M-8 (w/STC) |
| Length | 25 ft 6 in |
| Height | 7 ft 6 in |
| Wingspan | 36 ft |
| Wing area | 175 sq ft |
| Wing loading | 14.6 lb/sq ft |
| Power loading | 11 lb/hp |
| Seats | 4 |
| Empty weight | 1,628 lb |
| Max ramp weight | 2,550 lb |
| Gross weight | 2,550 lb |
| Useful load | 922 lb |
| Payload w/full fuel | 592 lb |
| Max takeoff and landing weight | 2,550 lb |
| Fuel capacity, std | 60 gal (55 gal usable) |
| | 360 lb (330 lb usable) |
| Baggage capacity | 120 lb |

**Performance**

| | |
|---|---|
| Takeoff distance, ground roll | 382 ft |
| Takeoff distance over 50-ft obstacle | 995 ft |
| Rate of climb, sea level | 1,150 fpm |
| Max level speed, sea level | 146 kt |
| Cruise speed/endurance w/45-min rsv, std fuel (fuel consumption) | |
| @ 75% power, best power | 140 kt/2.9 hr |
| 5,000 ft | (13 gph/78 pph) |
| @ 65% power, best economy | 133 kt/3.8 hr |
| 7,500 ft | (11.9 gph/71.4 pph) |
| Landing distance over 50-ft obstacle | 1,200 ft |
| Landing distance, ground roll | 372 ft |

**Limiting and Recommended Airspeeds**

| | |
|---|---|
| $V_X$ (best angle of climb) | 54 KIAS |
| $V_Y$ (best rate of climb) | 78 KIAS |
| $V_A$ (design maneuvering) | 106 KIAS |
| $V_{FE}$ (max flap extended) | 87 KIAS |
| $V_{NO}$ (max structural cruising) | 139 KIAS |
| $V_{NE}$ (never exceed) | 160 KIAS |
| $V_{S1}$ (stall, clean) | 52 KIAS |
| $V_{SO}$ (stall, in landing configuration) | 48 KIAS |

*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.*

Lying awake in our sleeping bags that night, watching a thunderstorm silently flash-paint the sky off to the east, my daughter and I shared a timeless moment listening to the raucous yelps of a pack of coyotes nearby in the darkness. Perhaps the wilderness is not vanishing after all—we just need a 180 to take us back to it.

The 180 was the perfect airplane for our western odyssey. High-altitude, rough, or short strips were no problem. One particular strip alongside a golf course was a quagmire after it had rained all night, but the 180 roared out of the soft mud without a thought. I was thankful not to be flying something with a nosewheel. I might still be sitting there waiting for the ground to dry—ever wait for the ground to dry?

The 180 isn't perfect. There are airplanes that will fly faster, others that will haul more, and a few that will get in and out of shorter runways. But the 180 does all these things pretty well. Airplanes that do several things well, the "jacks of all trades," endear themselves to people who use them for recreation and business. Others that quickly come to mind are the 172 Skyhawk, Piper's Cubs, and Beech's Bonanzas. Each of these airplanes does several things well, and they're all perennial bestsellers.

If (when?) Cessna goes back into single-engine production, it will most likely build the 172, 182, and the 206, according to Dean Humphrey, Cessna's unflappable and recently retired spokesman. There will no doubt be new Textron Lycoming engines under the bonnets in place of the Continentals (because Textron now owns Cessna, too), but the new models, except for some new paint schemes and a few electronic frills, probably won't look much different than the 40-year-olds on these pages. Buz Landry, of the International 180/185 Club, wants Cessna to build the 182 (or whatever the new version will be called) with a "universal gearbox" and "hard points," as he calls them, allowing the customer to opt for tailwheel or tricycle gear.

The world has changed a lot since 1953. Big, American, hell-built-for-stout cars of the 1950s are now endless variations of small, aerodynamic Japanese jellybeans. We now fly nonstop to Russia—for vacations. Big piston-engine transports have given way to all-electronic-cockpit, widebody jets, resembling huge moving terminal buildings. But it's comforting to know that some things change slowly or not at all with time. Kellogg's Rice Crispies still go "Snap, Crackle, and Pop!" when you pour your milk on them, just as they did in 1953. Howard Johnson's orange-roofed restaurants, the "Landmark for Hungry Americans," are still around, too. You can still buy "Tums for your Tummy" as you could in 1953. And Cessna's high-wing, strutted Cessnas introduced 40 years ago are still going strong.

My 40-year-old Cessna is getting some new radios and a panel update for its fortieth birthday. After all, 40 is just the beginning of middle age. □

*International 180/185 Club, Inc., H. Buz Landry, President, Post Office Box 222, Georgetown, Texas 78627; telephone 512/863-7284; fax 512/863-3751.*

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