CESSNA SKYLANE

The New 182

A sturdy bird flies again

BY THOMAS A. HORNE

PHOTOGRAPHY BY MIKE FIZER

The Cessna Aircraft Company has entered into what can be called a second phase in its highly touted effort to revive sales of new single-engine airplanes. The first phase involved the production and sale of Skyhawks; now there are some 90 spanking-new 172s in the hands of proud owners. The latest phase began when the first new Skylanes—models 182S, to be precise—rolled off the assembly line at Cessna's new plant in Independence, Kansas. As noted in previous issues of *AOPA Pilot,* the very first production 182 went to AOPA sweepstakes winner Michael Raisler, a 26-year-old flight instructor from Clermont, Florida. ● This past May, it was some of the *Pilot* staff's turn to lay hands on a factory-fresh 182. That's when Cessna's Rich Manor (regional sales manager for the Southeast United States) and Jennifer Whitlow (a marketing specialist from the Independence facility) dropped by with N282ES—a preproduction version of the 182S, with the exception of its three-blade McCauley propeller. Cessna is apparently toying

with the idea of providing the three-blade propeller as an alternative to the standard-issue two-blade propeller.

The initial impression is quite favorable, and due in no small part to the simple essence of newness that exudes from the airplane. It's puzzling to see a small horde of airport denizens drawn to a 40-year-old design with such gusto. There's always something attractive about a new airplane, so when ES taxied up to the AOPA ramp, knowing eyes spotted the telltale signs that this Skylane was one of the new breed (larger air intake filter housing, smaller bow tie-shaped engine cooling inlets, the stripes-on-all-white paint job), and sauntered over for a look.

Like the new Skyhawks that preceded them, the new Skylanes benefit from several major improvements over the 182R model of 1986—the year that Cessna suspended production of its single-engine line. Topping the list is the new 182's 230-hp Textron Lycoming IO-540 powerplant; prior fixed-gear Skylanes came with Continental O-470s, also of 230 hp.

Why the new engine? First off, it's fuel injected and Cessna sees this as a big safety feature. Carburetors can ice up in a wide range of atmospheric conditions; fuel injection sends precisely measured fine mists of fuel directly into each cylinder. Ergo, no carburetor, and no carburetor ice. The fact that Cessna and Lycoming are both Textron-owned companies no doubt also swung the decision in the IO-540's direction.

Compared to the Cessna single cabins of yore, the new 182 cabin actually looks like a place you'd be proud to ask your neighbors to enter. (Same thing with the new 172s.) The seats are beefier, will withstand 26 Gs, and have lateral support bolsters; the front seat latches and tracks are the same as those used in Cessna's Caravan. When those locking pins snap into place on those seat rails, they're there for keeps. It used to be that Cessna singles were famous for spontaneous pilot-seat slippage, and a few high-profile accidents have been attributed to the poor latching mechanisms and worn-out seat rail latching holes on older Cessna singles. The seat slippages often occurred right after takeoff, and when the seat lurched to the rear, it compelled a few unlucky pilots to grab the control yoke and pull it aft in the process. There doesn't seem to be any way that the new seats could slip, so that particular demon should be slain forever.

Armrests—with headset jacks at each

station—are more ergonomically friendly than those of the older Cessnas, and the treatment of the overhead reading lights and sturdier door latches are other welcome changes. So is the absence of ashtrays. An airplane is no place to light up, and it's nice to see that Cessna agrees. On older Cessna singles, you'd see ashtrays in the most appalling places, like on A-pillars (right next to the fuel lines) and on fuel selector housings (where multiple fuel lines join to feed reservoirs).

There was no cigarette lighter on E282ES, however, and this gave some of us pause. Not because we couldn't light up, but because there is no way of using the airplane's bus to feed power to a handheld GPS. Cessna says it's thinking about offering a "cigarette lighter" with this in mind, and calling it an "accessory power source."

But the instrument panel is perhaps the brightest star in the constellation of new features. Say goodbye to the cracking beige Royalite of old and say hello to a flat-gray metal panel stocked with instruments that elicit gobs more respect than the ones of the past. Those bobbing Stewart-Warner-like fuel gauges in older 182s and 172s have been replaced by more accurate gauges, and the old EGT and CHT gauges (which look as though they could have come from a lawn tractor) are blessedly missing, replaced by a combination gauge with a larger, easier-to-read face. Same thing with the manifold pressure and fuel flow indicators. Dual vacuum pumps and a flaggable Sigma-Tek attitude indicator come with every new 172 and 182.

The standard airplane comes with a modernized AlliedSignal Bendix/King radio package (see "Silver Crown's Next Step," June *Pilot*). This includes a KLN 89 GPS receiver, which is a VFR-only box; two KX-155A navcoms (one of which has a glideslope receiver); a KMA 26 audio panel with a built-in four-place, voice-activated intercom; a KT 76C Mode C transponder; and a KAP 140 single-axis autopilot. With an optional IFR package, you're given an IFR-certified KLN 89B GPS, a KR 87 ADF, and electric pitch trim added to the KAP 140.

Our demonstrator had the IFR package and wheel pants—the only other option available (at $1,200). The price tag came in at a healthy $200,700. Base price of a standard-equipment 182 is $190,600.

Flying

The new 182 reveals that slipping seats and carburetor ice weren't Cessna's only

concerns. Preflighting the 182 involves taking fuel samples from five drain points in each of the wings. Two more sump drains are located on the belly. The wing tanks are of the wet-wing design, whereas most previous 182s had rubber fuel cells.

The new Skylane has Lycoming's lopy rumble at idle, in contrast to what many feel to be the smooother and quieter Continental engines. Some on the staff swore that the airplane's inside noise was significantly higher than that of O-470-powered Skylanes, and Cessna admits as much, saying that better soundproofing may soon be installed in production models.

Some passengers were in various states of complaint because of alleged high noise levels. One staffer noticed that exhaust notes were coming through the left front window because of a poor fit. Others thought it was just plain loud. Apparently, the firewall soundproofing in N282ES, or absence of it elsewhere, isn't up to the task of toning down the Lycoming. I couldn't tell the difference, for two reasons: 1) Progressive hearing loss from a decade's worth of flying without ear protection, and 2) I was wearing a noise-canceling headset. I recommend that everyone follow the second option in order to preclude the effects of the first. In any event, Cessna reiterated that production 182s will have better soundproofing and better fit and finish than that of ES.

Flying the Skylane poses no special challenges. It feels and acts like a heavier, more powerful Skyhawk.

At gross weight and 5,000 feet, with a 10-degree-Celsius outside air temperature, manifold pressure set to 23 inches, and the propeller at 2,200 rpm, we turned in an indicated airspeed of 125 knots and trued out at about 135 knots. Turbulence caused so many airspeed fluctuations that it was difficult to be precise. At any rate, this power setting—approximately 75 percent—resulted in a 13.5-gph fuel burn. Cessna claims a 75-percent cruise speed of 140 knots at 8,000 feet.

The KAP 140 in the airplane we flew took some getting used to, as does any autopilot. The unit is designed to hold heading and altitude, as well as to capture and track either GPS or VOR signals. In the APR (approach) mode, the 140 tracks courses to tighter tolerances and will follow an ILS's glideslope commands. Autotrim inputs—used for altitude changes with the autopilot engaged—are made via two push buttons (Up or Down) on the autopilot control panel. Electric pitch trim independent of the autopilot is operated by a conventional yoke-mounted pair of thumb switches.

Though conditions were gusty and turbulent during our flights, the Skylane behaved well in the pattern. The airplane performed short-field takeoffs especially well. Set flaps to 20 degrees, firewall the throttle, lift off at 50 knots, and climb out at 58. With four aboard and full fuel, ES popped off the ground in about 600 feet and climbed out at approximately 750 fpm.

Sales, leases, and support

Though both the Skyhawk and Skylane have impressive price tags, Cessna says that there's been very little in the way of price resistance. Manor says that of the 20 Skyhawks he's sold to date, every customer anted up without a complaint. "They just wanted a new airplane...and brand loyalty is definitely a factor. Most had already owned Cessna singles before," he said. The "whistling gophers" (explanation: Faux prospect asks, "how much does it go fer?" Salesman answers, "$200,700." Faux prospect then whistles, thus simultaneously indicating both

anticipated shock and inability to pay. Ergo, whistling go-fer.) simply come, whistle, and go.

Cessna Finance Corporation has come up with a leasing program for its new singles, but to date everyone seems to be plunking down cash. It's a 72-month lease that calls for 3 percent of the purchase price (about $6,000) up front, and 1 percent (about $2,000) per month. At the end of the term, the contract provides for a buyout at a prearranged price.

In keeping with the current trend toward fractional ownership of turbine airplanes, Cessna is considering a shared ownership plan. This would involve sales to groups of individuals under the terms of a single contract.

New Skyhawks and Skylanes are covered by a 2-year "spinner to tailcone" warranty that covers the airplane as well as the avionics.

A new maintenance plan, called ProParts, will also be available for owners of new Cessna singles, beginning in August or September of this year. For a fixed monthly fee—yet to be determined—ProParts provides its subscribers with free parts. This fixed-cost budgeting plan is the first of its kind in the single-engine piston business. Turbine airplane and engine manufacturers, on the other hand, have been conducting these kinds of programs for years. In fact, ProParts is the name of Cessna's Citation parts protection plan.

For it to work profitably, Cessna must do its best to make better, longer-lasting parts so that claims are kept under control. For owners, ProParts means a steady stream of payments towards parts outlays instead of being floored by random, unpredictable killer parts bills. If the plan works as it should, Cessna wins by making high-quality airplanes that require fewer service bulletins, airworthiness directives, and other parts-driven repairs, and pocketing more of the premiums. Owners win by having more solid airplanes and peace of mind.

ProParts contracts will expire after 2 or 3 years. Then customers can re-up under new terms. At the end of each contract period, a percentage of unspent funds left in reserve on the customer's account is refunded. Citation ProParts participants typically get back 30 to 40 percent of their unspent reserves.

HITS

- Great package of standard features
- Dual vacuum pumps
- Heading bug standard
- Much improved fresh air circulation
- "Orange juice can" cabin air inlets gone
- Solid feel
- Good load-hauler: 700-pound useful load w/full fuel
- Good short- and soft-field performer
- New cowling keeps CHTs and oil temps in the green
- No ashtrays
- It's new

MISSES

- No pullable circuit breakers (except autopilot)
- No cigarette lighter
- Need longer-term lease with lower payments
- Decal "paint stripes"
- Cheesy glovebox latch
- Poor thigh support in rear seats
- Kind of slow
- Kind of expensive

Cessna on the move

The Cessna single-engine sales effort is definitely an ambitious one. The company says that it will build 300 Skylanes in 1997 and 600 in 1998. Cessna Chairman Russ Meyer is still sticking to his prediction of selling 2,000 piston singles in 1998. It's expected that some 50 percent of those singles will be sold overseas, and a trickle of Cessna singles has begun to leave the United States to foreign owners. Cessna's booth and chalet at this year's Paris Air Show are expected to feature Skyhawks and Skylanes flown to Europe for service not just on the tarmac at Le Bourget, but as demonstrators for European prospects.

Some of you may well wonder whether Cessna's French manufacturing licensee—Reims Aviation—will go back into the business of building F172s (a/k/a "Reims Rockets" fitted with 195-hp engines) or F152s and FA152s (Aerobats). The answer at this time is "no," according to Cessna. However, singles sold to European customers will be reassembled at the Reims plant after being containerized and shipped across the Atlantic.

All manufacturing efforts will continue to originate from Wichita and Independence. A prototype Turbo Stationair—model T206—has already flown from Cessna's Pawnee facility in Wichita. Test flights on that airplane are continuing, with the focus being on the behavior of that airplane's new Lycoming TIO-580 engine of 310 hp.

Cessna hints strongly that once the

Cessna 182S
Base price: $190,600
Price as tested: $200,700

Specifications

Powerplant	Lycoming IO-540 230 hp @ 2,400 rpm
Recommended TBO	2,000 hr
Propeller	McCauley, constant speed, 82 in dia
Length	29 ft
Height	9 ft 3 in
Wingspan	36 ft
Wing area	174 sq ft
Wing loading	17.8 lb/sq ft
Power loading	13.5 lb/hp
Seats	4
Cabin length	11 ft 2 in
Cabin width	42 in
Cabin height	48.5 in
Empty weight (standard)	1,882 lb
Maximum ramp weight	3,110 lb
Maximum gross weight	3,100 lb
Useful load	1,228 lb
Payload w/full fuel	700 lb
Fuel capacity, std	92 gal (88 gal usable)
Oil capacity	9 qt

Performance

(Numbers are tentative; aircraft is still in testing)

Takeoff distance, ground roll	795 ft
Takeoff distance over 50-ft obstacle	1,514 ft
Max demonstrated crosswind component	15 kt
Rate of climb, sea level	924 fpm
Cruise speed/endurance w/45-min rsv, std fuel (fuel consumption) @ 80% power, best economy 6,000 ft	140 kt/6 hr (13 gph)
Service ceiling	18,100 ft
Landing distance over 50-ft obstacle	1,350 ft
Landing distance, ground roll	590 ft

Limiting and Recommended Airspeeds

(Numbers are tentative; aircraft is still in testing)

V_X (best angle of climb)	58 KIAS
V_Y (best rate of climb)	80 KIAS
V_A (design maneuvering)	110 KIAS
V_{FE} (max flap extended)	140 KIAS
V_{NO} (max structural cruising)	140 KIAS
V_{NE} (never exceed)	175 KIAS
V_R (rotation)	50–60 KIAS
V_{S1} (stall, clean)	40 KIAS
V_{SO} (stall, in landing configuration)	35 KIAS

For more information, contact Cessna Aircraft Company, Post Office Box 1996, Independence, Kansas 67301; telephone 316/332-0359, fax 316/332-0388.

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.

T206 and normally aspirated 206 are reintroduced, the next piston single scheduled for reanimation might be the Skylane RG, the retractable-gear version of the 182. After that, there's talk of exploring new market niches to fill the gaps between the 182RG and the CitationJet. Such next-generation airplanes may well have turbodiesel engines that burn jet fuel and have single power levers, according to sources in Cessna. "New airplanes filling the missions that previously were covered by the 206 and 210 are definitely being considered," says Doug Smith, Cessna's single-engine marketing manager. "And we're thinking about light twins, too. But let's put it this way: We won't build any more piston twins...we want to build a family of light airplanes again, but right now we just don't know what would be in the family."

Then there's the Cessna Pilot Center (CPC) mission. Video educators John and Martha King have been tapped as the providers of lessons on CD-ROMs for the CPCs, beating Jeppesen-Sanderson in the competition for the CPC contract. The CD-ROMs will make their debut at this year's Oshkosh Fly-in and will be in students' hands in February 1998. "Everybody seems to think that the King CDs will be just like another King video. Believe me, they won't be," says Smith.

Another new initiative is the reorganization of Cessna's distribution network to unite both service and sales functions in single entities. Cessna calls them Cessna Sales Team Authorized Representatives, or CSTARs. All currently authorized Cessna service stations have been offered the chance to become CSTARs and sales agents for single-engine piston aircraft, each one serving a designated region. Under this scheme, Cessna shuns the term "dealerships" and emphasizes the synergies of what is, in effect, one-stop shopping of the kind that took place in the salad days of the 1970s. Each CSTAR will be required to keep a demonstrator airplane. CPCs may also be collocated at CSTARs, but this is not a requirement.

Growth, optimism, and investment. It sounds like a corny advertising tag line, but this is what's going on these days in the Cessna piston single story. Energy, too. It's refreshing to see young faces and enthusiastic vibrations in Cessna's newly recruited marketing and sales force. It gives you hope that maybe Cessna really will sell all those airplanes and that general aviation may yet see a turnaround. □