

■ It is always a pleasure to visit an old friend. And when that friend has kept right on improving throughout the years, the enjoyment is even greater.

This was the feeling I had when I opened the door of Cessna *Skylane* N3109R at San Francisco International Airport and started out on a two-week, 41.16-hour trip over the deserts of the Southwest and as far south as Mexico City. At that time, the recording tachometer showed exactly 44.31 hours.

When Cessna has built 10,179 *Skylanes* and 182's between 1956 and Sept. 30, 1968, you wouldn't really expect much difference between the 1968 and 1969 version. Actually, the 1969 package has a new paint striping and a phosphorescent instrument panel that emits light when electrical current is passed through it. It's a handy-dandy arrangement that has been used on more expensive Cessna models for several years.

Aside from these two minor modifications, the reliable *Skylane* hasn't changed a bit in the past year. So let's re-fly a 1968 *Skylane* and imagine that the panel was phosphorescent and the paint was changed just a bit. That's all the difference there is between the new 1969 model and our tour airplane—and we didn't fly it at night.

During the summers of 1957 and 1958, I had flown a square-tailed *Skylane* on a cumulus cloud research project out of Flagstaff, Ariz., for the National Science Foundation. In two summers of wild and woolly "cloud-busting," we had twisted the fuselage enough to pop open both doors, but never recorded any actual damage to the airframe. Yes, that *Skylane* frame will really take it.

The *Skylane*, or 182 if you prefer the slightly less expensive package, dates

back to the tail-dragging 180, first produced in 1953. After about 2,000 of the 180's were sold, the factory decided to put that little wheel on the other end and came out with the first straight-backed, non-swept-tail 182 in 1956. Since then, the 182/*Skylane* has been a consistent middle-priced proud bird with a swept-back tail and a steadily-increasing number of satisfied customers.

The fuselage was widened four inches and the vista-vision humpback installed in 1962. Wheel fairings became part of the deluxe package in 1958. N3109R even had a white roller curtain to blank out the rear window when the open-top type sunlight became a problem.

One of the satisfying things about the *Skylane*, particularly for newer pilots who are "getting up in the world," is the cockpit simplicity. Cessna engineers have done a thoughtful job of making their entire single-engine line with all the controls in the same places. I'm sure that a fairly competent Cessna 150 pilot could check out safely in the *Skylane* with little more than an hour of dual instruction. Except for the gross weight of 2,800 pounds, the only new things that the student would have to master would be the controllable prop, manual cowl flaps, rudder trim and a couple of extra cockpit instruments that are not essential to safe VFR flight.

After I shut the new easy-to-close door with its rotary latch, I pulled out the owner's manual and caught up on my homework. This "by-the-book" procedure is a must for anyone who flies a variety of aircraft and an extremely desirable habit even for the pilot who owns his own bird and never flies anything else.

I taxied out to an intersection on the main jet runway (28R) and went

through the straightforward 15-point before takeoff check list before changing to the tower frequency. It's no easy matter to get a lightplane off the ground at SFO. Even with an intersection takeoff that kept me away from kerosene fumes from the seemingly endless line of jets shuttling in and out, I had to wait for several minutes before the tower could find a small slot for a small plane.

N3109R was cleared to takeoff almost immediately behind a Boeing 727 and with a 707 that was (charitably) on a 1½-mile final. Fortunately, the surface wind was 15 knots and far enough off the runway to drift the wake turbulence out of the way. The tower requested a right turn immediately after takeoff and I attempted to comply once I was sure that no wake turbulence existed.

Soon I was circling out over the San Francisco Bay Bridge and headed for a trip back to the Los Angeles area. Not being a hot-rod at heart, I climbed at the recommended 23 inches and 2,450 r.p.m. at 110 m.p.h. and, with light weight, held over 800 f.p.m. At 7,500 feet, I leveled off and rechecked the book. It called for cruise power anywhere between 15 and 23 inches and 2,200 to 2,450 r.p.m. I picked 22 inches and 2,250 r.p.m. because it seemed to be the smoothest for that particular airplane. The same basic setting was used for the entire trip. That's 67% power at an average of 6,000 feet and fuel consumption averaged out at 13½ gallons an hour. I took along four quarts of oil, but added only one during the entire trip.

It takes a few minutes of flying before you notice that the right-hand (engine instrument) panel has been canted toward the pilot for easier

Shakedown For The New Skylane

by DON DOWNIE / AOPA 188441

En route from California to Mexico, the author enters pattern for landing at El Paso International Airport.

Photos by Don and Dana Downie



vision. Actually, this "tilt" could even be increased. With all controls on the instrument panel or center console, the floor between the front seats is flat and uncluttered, allowing the "brain bag" to be kept close at hand without interfering with flap handles or fuel selector controls.

At cruising altitude I closed the cowl flaps and leaned out the mixture to where it roughened up and added "just a smidgen" past the point on the rich mixture side where the engine smoothed out to make sure that I wasn't operating too lean. I didn't want to scorch our 230 h.p. Continental "friend" up front.

Personally, if I were to purchase a new *Skylane* (or any other high-performance aircraft), the first accessory I'd put in would be an exhaust gas temperature analyzer for precision mixture leaning. It seems just a little primitive to fly an \$18,995 package (plus all the extra on this particular airplane) and be required to lean your mixture by engine roughness, intuition and hope.

At Brackett Field we loaded clothes, survival equipment (including over three gallons of water and a desert water still) and cameras for nearly two weeks away from home. We climbed aboard with the 65-gallon tanks topped and computed that we were approaching the 2,800-pound gross weight of the airplane. Subsequent shopping in Mexico brought us up to full weight.

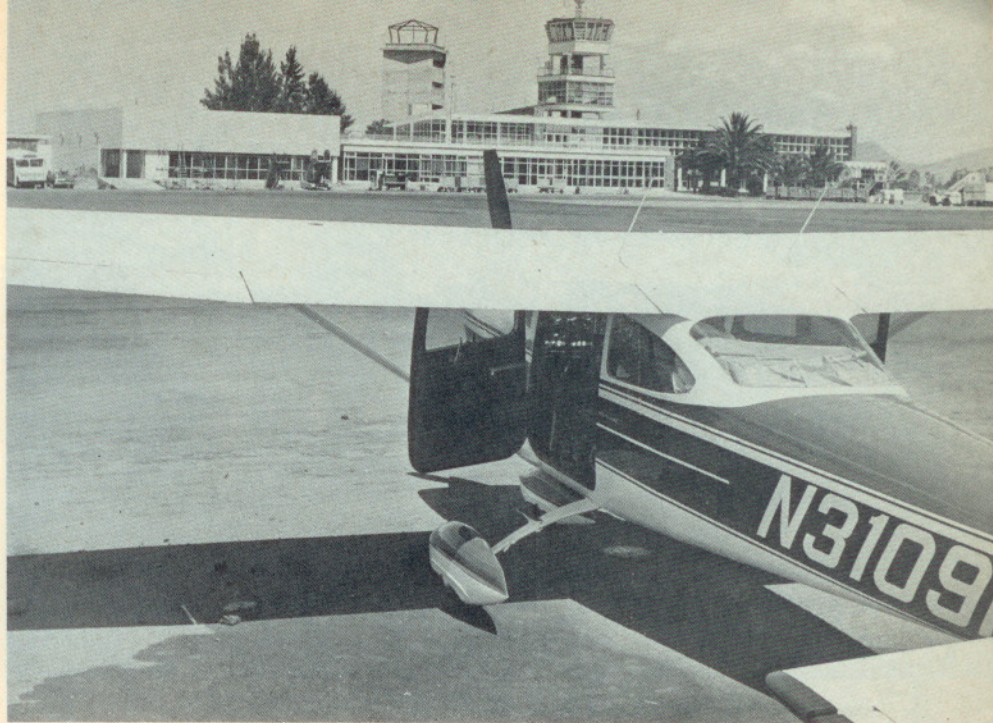
Two-week trip to Mexico, entailing over 41 hours of flying, provides excellent opportunity to evaluate Cessna's Skylane.

The author's conclusion: It's a gem

However, N3109R always seemed to trim out within a fraction of an inch of the dead-center mark on the elevator tab indicator. If forward trim increases you can "guesstimate" the amount of shopping the family has been doing.

Our *Skylane* was a factory demonstrator, with optional built-in oxygen, two Cessna 300 nav/com sets (one with glide slope), Cessna's Navomatic 400 autopilot and, fortunately for our Mexican destination, a three-band ADF that proved invaluable in south of the border orientation.

We took 21 minutes in a leisurely cruise-climb configuration to reach 9,500 feet. The *Skylane* is a delightful combination with enough horsepower to go almost anywhere, yet enough economy to be fairly easy on the pocket-



Cessna factory demonstrator Skylane, used by Downies for trip to Mexico and also the subject of this pilot report, rests on the parking ramp at Guadalajara International Airport. Note new control tower under construction to the left of existing tower.

book. The 12.2 pounds per horsepower seems to be a most satisfactory matching of weight versus power and the service ceiling is a comfortable 18,900 feet—more than enough to top Mexico's 17,887-foot Mt. Popocatepetl.

Our flight time from Brackett to Tucson International Airport, 397 statute miles, was 2:43; a 147 m.p.h. ground speed (block to block) with winds that were light and variable. Fuel cost was \$18.45 or just over 4½ cents a mile. From Tucson to El Paso we had one of those short, delightfully bumpy rides where there's a sheet of blowing dust from your tail. Deming, N.M., was reporting gusts to 40 knots from the west. We took 1:35 for the 272-mile hop, for a ground speed of 173 m.p.h.

The next morning, before the turbulence picked up, we arranged to take some air-to-air photographs of the area. It was only after flying some fairly tight formation that I began to realize just how well balanced and pilot-oriented is the *Skylane*. When you're flying close to another airplane you can't afford to take your eyes off the camera ship for a second to see about your power settings or anything else, unless you break out of the formation. I found that there was no fumbling for rudder or elevator trim, throttle or flaps. All the controls had a functional reaction. The elevator trim was vertical, the rudder trim horizontal, the flap handle felt like a flap and the throttle was a conventional push-pull rod with a twist-to-lock friction attachment. The prop control, by contrast, is a vernier with a squeeze-to-override attachment. With this straightforward system, it's completely practical to fly this bird strictly by feel while watching the camera plane.

There was only one small fly in the photo flight's ointment. The right top

corner of the plexiglass windshield had considerable distortion that made the camera plane double in size with a slight head movement. Factory production pilots check each windshield for distortion before delivery, but this inspection is usually limited to the forward and sideward visibility of average flight requirements. However, the *Skylane* was extremely responsive at slower speeds and stayed with the lighter Cessna 172 with ease. I had only slightly sweaty palms after a 45-minute close-in flight.

Some pilots consider the control forces of the *Skylane* to be on the heavy side. Personally, I like them that way because I feel that I'm flying the machine, not having it fly me. I believe that there's less tendency to overcontrol in critical situations with firm wheel and rudder pressures. For the past four years the *Skylane* has had a larger stabilizer and a modified elevator down spring to reduce elevator up loads by 20%.

At the factory following our Mexican flight, W. D. Thompson pulled out his slide rule and supplied the following control wheel forces required for a flare-out with a moderate C.G. and an 85 m.p.h. glide. His figures show 25 pounds of back pressure for a normal flare and 40 pounds for a full stall if the trim tab is not used. This compares with the Cessna 150 where a 75 m.p.h. to 55 m.p.h. glide requires only 10 pounds to flare out and 14 pounds for a full stall. Thus, if you want to make your *Skylane* landings the easy way, you'll roll in a little nose-up trim as you come down final approach. An optional electric trim button, located on the pilot's control wheel, is available.

There's an excellent balance between all three control forces, with the same firm pressure needed for rudder and aileron.



Cessna Skylane N3109R circles over ruins of old church near San Blas, Nayarit, Mexico. This historic area was departure point for Father Junipero Serra when he went to Baja California in 1768 to take over Jesuit missions there.

When I picked up N3109R, the first thing I did after leveling off at altitude was to take off the rear-view mirror. I tried to remove the bracket too, but it wouldn't come off easily. Mirrors are fine for Cadillacs, but they form a bit of a blind spot in flight.

Later Cessna explained, "The purpose of the rear-view mirror is primarily for viewing the elevator and rudder movement in a pre-takeoff check and to view other aircraft following on a crowded taxi strip." I had thought the installation might be to view a student's face during instruction as we did in the old Stearmans, but the factory says no. The only constructive use I've seen made of it was when flying with a group of women pilots. They used it to freshen their makeup before entering the traffic pattern.

N3109R had a rotating beacon, but nowhere in the check list was there any mention to turn it on. When you fly frequently in the "industrial haze" of Southern California (Mexico City has it, too) part of your pre-takeoff check list is to turn on the beacon just before takeoff and try to remember to shut it off after landing.

The efficient electric flap system on Cessna's single-engine line has been improved. Now you can drop the first 10° to a pre-set detent without looking at the flap-shaped handle. This first 10° is approved up to 160 m.p.h., while 110 m.p.h. is red-line for the remaining 30°. This high-wing aircraft has a slight tendency to pitch up momentarily as flaps are applied, but as speed decreases,

At Mexico City, Author Downie landed the Cessna Skylane on this dry lakebed adjacent to the International Airport. It was one of two stops made during two-week journey where landing was made on unpaved runway. The lakebed is used as a student training field, keeping such operations to a minimum at Mexico City International.

the control pressure can be trimmed out nicely.

Since our trip was planned into some isolated airports without the niceties of external battery carts, I was glad the 230 h.p. Continental O-470-R engine had an "old-fashioned" carburetor system. The engine never turned more than three or four revolutions before it fired, either hot or cold. Naturally, pilots who fly the same fuel-injected system all the time seldom have trouble even with hot starts, but this can present a problem to a pilot who has low time in any particular fuel-injected installation.

Application of carburetor heat before landing, particularly at the high altitude fields of Mexico, would cause the engine to run a bit rich and shake a little. It took just a little leaning of the mixture control to get things smoothed up again.

The 230 h.p. Continental runs on get-anywhere 80/87 octane that costs an average of 25% less in Mexico than 100 octane. At Torreon, for example, we paid \$14.24 (U.S.) for fuel at 99 centavos per liter, or 29.8 cents a gallon. The 100/130 octane would have cost 1.20 pesos (36 cents) a gallon, but even that is inexpensive when compared with some U.S. fuel costs.

Avgas is one of the better bargains in Mexico, and comes piped and filtered at the larger fields. At secondary

airports, however, it was shuttled from a 55-gallon drum with water buckets and sloshed through an aging chamois filter.

Actually, we had N3109R off pavement only twice on the entire trip. The shortest grass field we went into was a tropical grass strip at San Blas on the Pacific Ocean in the Mexican State of Nayarit. While local resort owners advise that the strip is 3,000 feet long, Arnold Setterfitt's durable footage counter comes up with only 2,157. However, we shot a number of landings there for picture purposes and always had plenty of runway to spare, both on take-off and landing.

Our other off-airport landing was on the dry lake bed adjoining Mexico City's 7,340-foot-high International Airport. Mexican pilot Antonio Silva and Dana, on an air-to-air photo flight, landed with an electrical problem and I followed them in. We took off from the soft surface used by local operators as a training area at shortly after noon on a warm day (80°F). That put the density altitude at 10,400 feet so every one of those 230 horses under the cowl were appreciated. Soft and short field take-offs call for 20° of flaps so that the wheel drag of the soft surface is minimized. I would estimate that our take-off roll from the training lake bed was 25% longer than from the busy International Airport.

In all the higher country of Mexico, the adequate "brute" horsepower was greatly appreciated. Having the power to climb out of a high altitude basin, rather than sweating out a thermal, makes the trip more enjoyable. On our takeoff from Durango, elevation 6,200 feet, we headed out with a slight tail wind toward the end of Runway 22 and had it made well before we passed the midpoint of the runway. Again, always remember to lean the mixture before takeoff for highest r.p.m. at high altitudes.

Heading west from Durango, it took a good 12,000 feet and more brute horsepower to clear the towering, broad range of the Sierra Madre Mountains before letting down into San Blas. The many high trees and rock ridges of this coastal range are a striking duplicate of the scenery of the Burma "Hump."

We returned to the land of the milk shake and hamburger at Brownsville, Tex., detoured through the HemisFair and waged a winning battle with head



winds and turbulence back to the West Coast. Howard Zeller, (AOPA 241396) a Cessna 172 owner, joined me for the delivery back to San Francisco to log some *Skylane* dual. In stepping up from his ubiquitous 172, he had no trouble at all in doing everything right in the faster, heavier *Skylane*.

While there wasn't a single malfunction on our entire trip, I did run across a unique situation that probably won't happen to anyone else. When I first came back on the mixture control at altitude, the red handle moved freely without the necessity of squeezing the middle of the knob to pull out. Since this seemed like a built-in booby trap, I wrote the factory immediately. When we returned from Mexico, there was a letter waiting from Bill Thompson.

"We were surprised at your objection to the location (and action) of the mixture knob since it has been in this relative location for the past 10 or 15 years on the 180-182 models," he advised. "In addition, it is protected by a 'squeeze to release' type of knob which should prevent inadvertent operation. A further distinguishing feature is that it is an entirely different type of knob in symbolic shape and function than the adjacent propeller control knob."

I rechecked N3109R while Zeller was driving the airways north to San Francisco, and the mixture control still came out without benefit of squeeze. It was only while picking up all the loose papers and tidying up the cockpit that I came across a tiny spiral spring on the floor mat. Zeller is an engineer at McDonnell Douglas and we pondered the situation. For lack of anything else to do, I unscrewed the center portion of the red mixture handle and inserted the spring. It fitted nicely and when I put the plastic package back together, we had the normal squeeze-to-pull action. There's something new on every flight.

When we were cleared for an expedited approach back into SFO, the tach on N3109R showed 85.47 hours. At the last possible moment, the tower changed our landing from Runway 28 right to 28 left. We were advised to "land long, beyond the intersection, because of a hole in the runway." It seems that as the big jets rotate, they tend to blow chunks out of the runway surface.

However, the change in runway worked out nicely because in the two weeks since we had left San Francisco, Butler Aviation's transient operations had moved from a trailer on the north side of the field to a spacious hangar on the south side.

We turned in the key, left a memo of "no malfunctions" and caught a Western Airlines *Electra* back to Ontario, Calif. Our affair with the *Skylane* had covered some of the most rugged, interesting country in North America, and nothing could have performed better. Some aircraft will go a bit faster, or higher, land a little shorter or carry a few more people, but Cessna's label of "not too large or too small or too plain or too hot or too tame but 'best blend'" is much more than a promotional statement in a color brochure. □