

# Pilot Flight Check: The Piper Super Cub

It has always  
been a plane worth talking about

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■ ■ The year was 1930; the man at the drawing board was C. G. Taylor. His task was not easy. The company treasurer had ordered him to design an airplane that would be inexpensive to buy, cheap to maintain, and easy to fly.

What Taylor created was a machine of simple genius. He created the "Cub," an aircraft whose name would become synonymous with general aviation.

Taylor's treasurer, W. T. Piper, later took control of the company and the airplane as well. Piper's business acumen, combined with the soundness of his product, worked a wonder often likened to Henry Ford's success with his Model A.

The Piper J-3 Cub, a 1937 derivative of Taylor's original, was a machine of modest performance even in its heyday. It was a cloth-covered tandem seater with metal-tube frame and 65 horses to pull it. Cruise speed was a modest 75 mph, it climbed at 450 fpm, and its tank went dry after 200 miles. But the airplane fit Piper's order exactly. It was durable, docile, cheap to operate, and cost about \$1,500. For all these reasons, 14,125 Cubs were sold by Piper by the time production ceased in 1947.

The end of Cub production marked the end of an era. Piper Aircraft moved ahead with the times, concentrating on metal-skinned, low-winged birds with more seats, more power, more range, and more electronics—which, naturally, cost more money.

As the Piper line grew in sophistication, following World War II, the Cub proved to be a nettlesome ancestor. For when the name "Piper" was mentioned, the image of a tiny, two-place "putt putt" came to mind. That image could hardly benefit a company working up to production of its first light twin, the Apache.

The name "Cub," and the vision of that high-winged silhouette, had to be downplayed for the good of the company.

Largely for this reason, one Piper aircraft now in production is all but ignored in company advertising and promotion. It is a high-winged, fabric-skinned tandem seater. Yes, Virginia, it's a Cub—a Piper Cub, which, in deference to certain refinements over the original, is called the "Super Cub." But lordy, how it takes after its father.

The tail's a bit longer than that of the old J-3, there's a



150-hp Lycoming up front where the four-banger Continental used to be, and the Lycoming's hidden behind a curved metal cowl. Flaps and twin wing tanks were also added, but these modifications are just variations on a theme. This is very much a Cub.

Although J-3 production halted in 1947, the Cub line has continued—albeit sporadically—ever since. There was the Cub Special in 1947 and 1948, and the Super Cub came into being in 1949. The Super Cub production line has experienced shutdowns over these past 26 years, the most recent one caused by flooding of the Susquehanna River at Piper's Lock Haven, Pa., plant, where the Cub has always been built. Even with shutdowns, 4,740 Super Cubs have rolled out of the plant since its introduction.

Aside from the company's low-key treatment of its current Cub, another reason one hears little about the plane





has to do with the specialized roles it plays today, far from the madding crowd.

The original J-3's principal role was that of trainer. It is said that more American pilots in World War II learned to fly in Cubs than in any other aircraft. For the Cub was the primary aircraft of the Civilian Pilot Training Program, the federally assisted program through which tens of thousands of wartime pilots won their wings.

Following the war, however, trainers with tricycle gear, side-by-side seating, and aluminum fuselages and wings began winning student pilots away from the Cub. The Piper classic had to find a new role if it was to survive.

The job it signed on for was that of jack-of-all-trades. Not only did it survive in the bush, it thrived. Wherever there was a need for a working airplane, but little in the way of airplane accommodations, the Super Cub was king. In Alaska, in northern Canada, in the

western rangeland, the new Cub worked steadily as air taxi, ambulance, delivery van, and mail truck. When the job to be done called for low, slow and steady airwork, such as border and pipeline patrol, fish spotting or banner towing, the Super Cub was the choice. And when gliders need a lift, the Super Cub is usually the machine that provides it.

According to the book, a Super Cub needs only 350 feet of runway for landing and takeoff, and it can spend a merry lifetime clomping along at 50 mph. Tear a wing and you can patch it in the field. And pick almost any field; the gear can take it. When Piper says the Super Cub's landing gear is "well proven," they mean it. The shock cord springs were used on the very first Taylor Cub.

Despite its light weight of 930 pounds empty, the Super Cub is a rugged bird, with a skeleton of welded steel tubes and a lifetime Ceconite skin. The wing

ribs and spars are aluminum, and the O-320 Lycoming is as reliable as they come.

It is this fabric bird's mettle that has kept it in demand. Virtually every one of the 150 or 160 Super Cubs now built annually is sold before completion. It was this fact that kept The PILOT cooling its heels for several months before getting the okay for a test flight.

Jim Porter (AOPA 351068), head of Cardinal Aviation, a Piper dealer and FBO at Columbiana County Airport in East Liverpool, Ohio, agreed to let us take his new Super Cub for a spin at the factory before he took it home.

Porter, also a Schweizer dealer, has sold several Cubs—all of them to glider operators—and has used them himself as tow planes and for pipeline patrol. Porter said his pilots had their choice of several airplanes for the patrol but usually chose to fly the Super Cub.

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Near Piper's Lock Haven factory, Jim Porter shows off his new Super Cub before heading it home to Ohio. Photos by the author.

*SUPER CUB continued*

"The Cub isn't the most comfortable plane in the world," recalled Porter, "but we all preferred it. I can't tell you what it is about the Cub—it's just that you know it'll get you there."

The Super Cub of the hour was 8989Y, a rather exotic version, since it had an optional electrical system, including battery, starter, circuit breakers and all, as well as the venturi-fed turn-and-bank and a landing light. It had no radio; Porter has never sold one that did, and most leave Lock Haven radioless.

If the Super Cub's silhouette, its tailwheel, and its fabric and stitching aren't enough to convince you that it's an aeronautical anachronism, one fact will: It has no keys. To enter, one slides back the glass on the port-side window, reaches in, and tugs the door catch on the right. Walk around and scramble in as best you can. Flip both mag toggles and hit the starter. That's all there is to it.

Once secure in the driver's seat, you

become aware of the stark simplicity of your surroundings. The instruments before you are few: airspeed, compass, oil gauges, tach, altimeter, plus three pieces of exotica: the turn and bank, a clock, and a vertical speed indicator. (A gyro package is optional at \$720.) There's a mixture control, a starter, a primer, and a cabin vent pull. And that's it for the panel.

The throttle is on the windowsill on your left. Below that is the tank selector. A small panel immediately beside you on the left contains the mag toggles, carb and cabin heat controls. Another panel, this one wing high and on the right, houses the electric switches and circuit breakers. The fuel gauges are two liquid-filled, clear plastic tubes, wing high, both left and right.

So much for the instrumentation.

Control is performed by stick and rudder, but even these rudimentary devices are stripped to bare essentials. The cables to all the control surfaces are exposed, snaking over your head out to the ailerons, and beside your rump back to the tail. The trim tab lever is below the mags.



## PIPER PA-18-150 SUPER CUB

### Specifications

Engine	Lycoming O-320, 150 hp
Length	22 ft 7 in
Height	6 ft 7 in
Wingspan	35 ft 2½ in
Wing area	178.5 sq ft
Wing loading	10 lb/sq ft
Power loading	11.6 lb/hp
Empty weight	930 lb
Gross weight	1,750 lb
Useful load	820 lb
Fuel capacity	36 gal
Oil capacity	8 qt
Baggage capacity	50 lb
Seats	2, tandem
Basic price	\$16,450
Price as tested	\$18,225

### Performance

Top speed	130 mph
Cruise speed	115 mph
Best-rate-of-climb speed	75 mph
Stall speed:	
Full flaps	43 mph
No flaps	47 mph
Range	460 mi
Fuel consumption, 75% power	9 gph
Takeoff roll, full flaps, over 50-ft obstacle	500 ft
Landing roll over 50-ft obstacle	725 ft
Service ceiling	19,000 ft

Also, located just below the rudder pedals are two little tabs. These are what's known as heel brakes, insidious aberrations from what has become standard, and devilish for novices to master. The flap handle is a simple lever with "up," "half" and "full" settings and can only be manipulated by the man in front.

Time was running short, so the moment had come to fly. With both 18-gallon tanks full of 80 octane and two 170-pound men aboard, the Super Cub was about 150 pounds shy of its 1,750-pound certificated gross weight. Field temperature was about 75°F; field elevation was 555 feet.

Proper rotation speed is apparently a matter of pilot preference and experience, for no mention is made of it in the Super Cub's owner's manual. Porter said "55 or 60," but we held it slightly longer. We climbed at 75 mph, the best rate, and at 4,000 feet were still showing 800 fpm.

Stalls, power on and power off, full flaps and clean, were all very mild. In each case the break came below an indicated 40 mph, and recovery was very quick. Recovery from the power-on stall was sloppy, and yet only 100 feet of altitude was lost.

We leveled at 3,600 feet and pushed the engine to 2,400 rpm (redline is 2,700 rpm). The airspeed needle settled on 100 mph, which with a 45°F tem-

perature works out to a 105-mph cruise at about 75% power. This while the engine slurped 9 gph.

"It just seems to go 100 miles per hour no matter what you do," commented Porter. The Super Cub's maneuvering speed is 96 mph, while never-exceed is 150 mph.

The airplane responded well to control pressure at 50 mph indicated, but the klaxon-like stall horn would make sustained slow flight unbearable.

Super Cub pilots are surrounded by glass—front, sides and top—and thus can become uncomfortably warm. When this happens, just pop open the top half of the right window and you are one with nature and the cool air on high.

Approach speed for landing was 70 mph. With half flaps the landing roll was well within the 725 feet listed for obstacle-clearance arrivals.

Such was our introduction to the Super Cub, unheralded workhorse of the Piper line.

"We're proud of the Cub heritage," said one Piper spokesman. "We don't advertise the Super Cub specifically, because the people who buy the airplane know we build it."

"We want to tell the world about what's new at Piper," he continued. "There's not much point in telling them about a Cub."

He's right, you know. Everybody has heard of the Piper Cub. □



The 150-hp Lycoming up front and the curved metal cowl are Super Cub variations on the J-3 theme.