USED-AIRCRAFT FLIGHT CHECK:

The Aeronca Champion

Slow and homely, but nostalgic and fun, the Champ has the answer for those who say flying has got to be costly

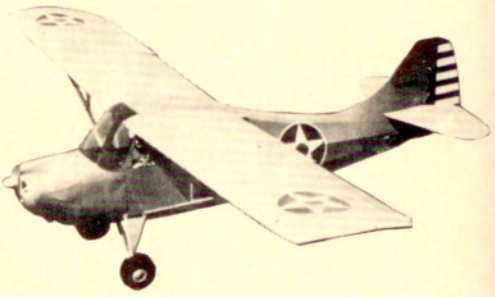
by BARRY SCHIFF / AOPA 110803

■■ By today's standards, the squatty Aeronca Model 7AC "Champion" isn't very glamorous. Its features are almost nondescript and resemble the typical, rubber-band-powered model airplane found in hobby shops. Nor is its performance anything to brag about. Cross-country flights are possible, but only if you've got the patience to barely keep up with freeway traffic. After all, what can you expect from an airplane slightly more powerful than a lawnmower?

But the Champ's leisurely stride is a refreshing escape from the frenetic pace of modern living. Champ pilots are never in a hurry to go anywhere—they can't be. If they're discouraged by headwinds, they simply turn around and head the other way. Champ pilots really get to be topographical experts, too; the terrain under their wings moves so slowly that there is ample time to study what other pilots see only as a blur.

A close friend of mine, Bill Melamed, owns a magnificently equipped Cessna 414, replete with RNAV and RMI. Bill is also one of those early birds who received his aerial baptism in a Champ. So it came as no surprise when he enthusiastically joined me in the purchase of a recently rebuilt 7AC. The affable "Air-Knocker" allows us to cling romantically to the nostalgia of the uncomplicated past.

For us, reverting to a Champ is like



rediscovering the affections of an early sweetheart. When Bill needs to go somewhere, he flies the twin, but when he craves unadulterated, plain-vanilla flying just for the thrill of it, he straps on the Champ.

Climbing aboard the Knocker requires some mild contortions and hip-swiveling. But once you're inside, the accommodations—both front and rear—are comfortable.

The cockpit is spartan, and few Champs are equipped with more than the Feds require. Owners of other aircraft usually add black boxes and exotic hardware whenever their budgets and spouses permit, but Champ pilots are a different breed. If an instrument isn't necessary, it is removed.

The 7AC can be flown solo from either the front or the rear, but the Champ instructor prefers the student up front where he can see the basic instruments and get a better view of the outside world. The rear perch is the exclusive domain of the instructor. From there, he can bop an errant student on the noggin with a rolled-up sectional chart or secretly nap on cross-country flights while the student is occupied with navigation. After all, how far off course can a student get in 15 minutes at a cruise speed around 80 mph?

When the Champ is flown solo from the front, 40 pounds of baggage may be carried in the canvas catch-all behind the rear seat. But when the rear seat is occupied, only 20 pounds are allowed.

Unfortunately, my partner and I have never been able to fly our Champ together. When the 13-gallon fuel tank is full, Bill and I collectively outweigh the Champ's 432-pound allowable payload. It seems that whenever I'm on a diet, Bill is gaining and vice versa.

Starting the 65-hp Continental four-banger is no problem as long as someone's handy to hold the brakes while you pull the prop through by hand (the engine has no provision for an electrical starter). But what does a pilot do when there's no assistance near the launch pad? Simple. He winds the rubber band by himself. FAA has no regulation outlawing this procedure as long as steps are taken to prevent a runaway Aeronca sans pilot.

One safe method suggests tying the throttle closed and shutting off the fuel valve. Sufficient fuel remains in the carburetor to start the engine. Quickly remove the chocks and tiedown ropes, climb aboard, and turn on the fuel before the engine quits.

The "on-off" valve, carburetor heat control knob and magneto switches are in a recessed panel on the left cabin sidewall between the tandem seats. These controls are easily accessible to the rear pilot, but the front pilot must crane his neck, twist his torso, and manipulate his double-jointed left arm to use them.

Most tricycle-gear pilots have little trouble learning to taxi a Champ. The steerable tailwheel responds reasonably well to rudder-pedal movement, and over-the-nose visibility is good: S-turning is not required to see ahead. The Champ, however, is an overgrown weather vane and expresses a desire to turn into the wind—even when there is none.

There is a valuable lesson in store for an observant pilot who taxis a Champ into a strong wind: aileron steering, a unique way to demonstrate the adverse yaw effect of ailerons and to show why airplanes need rudders.

While taxiing into the wind, move the control stick full left. The seemingly contrary little Knocker will turn oppositely, to the right. Full right stick results in a taxiing turn to the left. Using only adverse yaw effect, I have S-turned a Champ down the full length of a mile-long taxiway.

The Champ's large ailerons also create considerable adverse yaw in flight, requiring moderate rudder usage. This postwar trainer is intolerant of sloppy flying and insists on adroit stick-and-rudder coordination to keep the slip-skid ball under control.

The mechanical brake system was seemingly designed by a sadist who com-

pletely disregarded the limited dexterity of the human foot. To operate the two "heel" brakes, rest the balls of your feet on the rudder pedals and bring your heels together until they are cocked at 30-degree angles. Then begin jabbing at the plywood floorboards with your heels until they make contact with the tiny, elusive brake pedals. Hopefully, both pedals will be contacted and depressed simultaneously when you're trying to slow down. Otherwise, you learn quickly that a groundloop isn't a dance step.

The parking-brake handle is under the left side of the instrument panel, but don't rely on it. In most Champs, it's only decorative.

Immediately above the parking-brake handle is the cabin-heat control, which, when pulled, boils your left foot while the rest of you gets frostbite.

The runup is simple, and takeoff is typically taildragger. Cruise altitude, however, is reached in less time than that required for more powerful aircraft. This is because Aeronca pilots don't (or can't) fly very high. The 370-fpm climb rate is sluggish, but the climb angle is surprisingly steep.

Aloft, the Champ is indeed a champ. The NACA 4412 airfoil is as docile and forgiving as any pilot of the late forties could expect. The ailerons require some pressure to move and, when moved during a stall, can induce an unintentional spin. Also, the Champ is slightly deficient in nose-up trim when the rear seat is empty. Otherwise, the craft has no bad manners and is a delightful aerial playmate.

The Aeronautical Corp. of America (Aeronca) never published a flight manual, so most flying is done using by-guess-and-by-golly methods. Climb and glide speeds are about 60 mph, but if the airspeed indicator is typically unbelievable, simply fly a comfortable attitude.

Steep turns at Aeronca speeds are remarkable. The Knocker can pivot full circle around a pylon in only 10 seconds when in a 60-degree bank, something impossible in faster machines.

The Champ doesn't have flaps, but because of extraordinarily large control surfaces, it can be slipped from the sky more dramatically and steeply than modern airplanes being slipped with flaps extended.

Unfortunately, the Aeronca Champ and Mr. Piper's J-3 Cub are similar in appearance and often are mistaken for one another. The most noticeable difference is the cowling. The Champ's engine is completely enclosed while the Cub's four cylinders poke into the breeze.

The performances of both aircraft are also similar, with the Champ leading slightly in speed, stability and ease of entry. The Cub has slightly better climb and glide performance. Cub proponents point out that the J-3 has better summer ventilation because it can be flown with the doors open. The Champ pilot, however, can remove his door—but then FAA limits him to reduced airspeeds (that's a joke), shallow slipping, 15-degree bank angles, and none of the limited aerobatics (outside and snap maneuvers prohibited) for which the Champ is certificated.

The Champ is also roomier than the Cub, has superior cockpit visibility, and is easier to learn to fly. Because of weight and balance limitations, a Cub student must learn and solo from the rear seat. Unless the CFI in front leans to one side, flight instruments are hidden from the student's view.

Anyone who claims that flying has to be expensive has not been introduced to Aeronca economics. The price of a Champ varies from $1,000 for one with a runout engine and marginal fabric to $4,000 for one in mint condition, with a fresh engine (TBO 1,800 hours) and synthetic fabric that will outlast the airframe.

There are 2,000 Champs still registered, and obtaining parts is not a problem. Some Champs have electrical systems and wind-driven generators, but most do not. Radios are usually powered by portable, rechargeable battery packs.

If a Champ is flown 200 hours per year, the hourly cost is about $8, and that includes everything, even today's high fuel prices. Fuel consumption is only 3½ gph. Depreciation? There ain't none. If anything, Aeroncas will continue to appreciate, as they have done steadily for the last ten years.

The used-plane market abounds with aircraft competing for the attention of cross-country pilots. Unfortunately, these long-legged cruisers are expensive and have voracious appetites for costly fuel. So if it is your desire to own an airplane that offers little more than an inexpensive way to give in to the lure of flight, then consider the Aeronca Champ. It is one of the great fun machines. □