

Old Friends

Together again, and the magic's still there.

BY BARRY SCHIFF



We were flying low and in formation over the coastal hills east of Livermore, California, maneuvering for a camera in the warm light of a low sun. ■ Lengthening shadows began to fill the valleys and hide the few flat spots that could be used for an emergency landing. I was not thrilled about having to rely on a 50-year-old engine at such a time. My grip on the control stick tightened slightly, and I began to consider my options in case of power loss. ■ But then a strange thing happened. It seemed as though the airplane was trying to

PHOTOGRAPHY BY LONNA TUCKER

tell me something. I could almost hear the words. "When I taught you to fly so very long ago, I endured and forgave your ham-fisted blundering. It seemed as though you were trying to break both my back and my spirit. But I never let you down. Not once. I protected you from yourself more times than I can remember. Shame on you for thinking that I might betray you now."

The words were right. I knew that I could trust this airplane without reservation. I felt secure and comfortable as the bond between us renewed. My grip on the stick relaxed, and I needed only the tips of my fingers to lead the Champ through an aerial ballet in the disappearing rays of sunlight.

Last summer, I realized that in a few months, I would have been flying for 40 years. I took my first lesson at Clover Field (now called Santa Monica Municipal Airport) at the age of 14 in an Aeronca 7AC Champion on November 7, 1952.

Not only did I receive my aerial baptism in N81881, but it also was the airplane in which I soloed and earned my private, commercial, and flight instructor certificates. But I learned the most about flying when the Champ



and I taught others to fly.

I wondered if N81881 was still flying. Or had this number been passed unceremoniously to some other aircraft? Surely, I thought, the old trainer had yielded to the ravages of time. But a search of Federal Aviation Administration records showed that the Champ had survived and apparently still flew. It was owned by James Bottorff of Livermore.

I contacted Bottorff to see if I could arrange to once again fly what undoubtedly has been the most meaningful and memorable aircraft of my career.



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What a wonderful way that would be to celebrate my fortieth anniversary aloft. To my delight, Bottorff agreed to let me fly his Champ. He even seemed to sense and share my excitement.

A hopeless romantic, I suffered some anxiety as I approached the Champ last October. It was as though I were about to rendezvous with my first love, fearing I would discover that the relationship was not as wondrous as the memories had made it seem.

N81881 was parked in front of Bottorff's hangar. The cabin door was open, leaning against the aft wing strut, as if inviting me to step in for a nostalgic rendezvous with the past. The Champ has aged more gracefully than I have. It has had four changes of fabric, at least as many paint jobs, and plenty of affectionate care.

The aircraft has undergone a few changes since the last time I flew it. The wind-driven generator and the low-frequency radio, which had the broadcast range of a megaphone, were removed. They were replaced with a VHF transceiver powered by a rechargeable battery pack. Also added were wheelpants, a larger tailwheel, and 10 more horses, an increase to 75 horsepower.

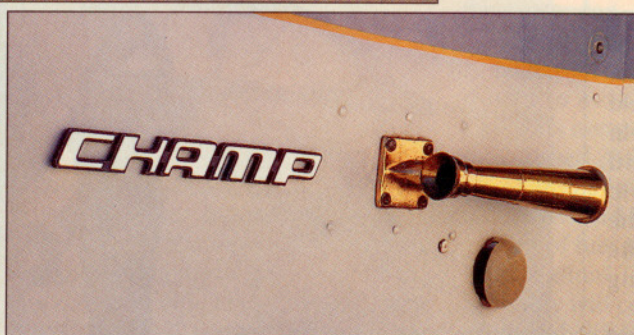
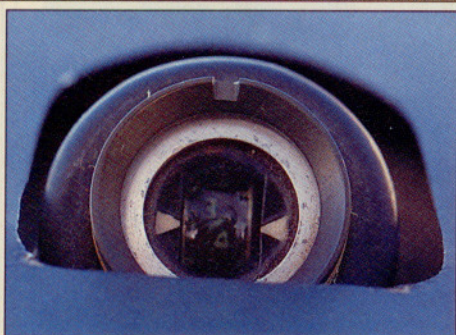
Bottorff is an architect working at the Lawrence Livermore National Laboratory. He had liked the idea of an affordable, fabric-covered taildragger with a control stick instead of a wheel. "It

seems more like real flying," he said. Bottorff bought N81881 in May 1985.

He told me that one of the Champ's previous owners was Doren Bean, who also had kept the aircraft at Livermore. In 1980 and while still owner of the Champ,

Bean borrowed a Pitts S-1 from his good friend, Jeff Chambliss. During his second flight in the Pitts, Bean had an accident and was killed.

During the subsequent investigation, the FAA determined that Bean did not have a pilot certificate. The San Joaquin County Sheriff's Department discovered also that Bean had some aliases. One of these was D. B. Cooper. Doren Bean, therefore, might have been the world's first skyjacker (who bailed out of a Northwest Orient Boeing 727 in 1971 with a \$200,000 ransom). During a telephone interview,



Schiff with N81881's current owner, James Bottorff.

Chambliss told me that Bean had frequently mentioned his exploits as a skydiver, and this explains why the locals at Livermore are convinced that the infamous skyjacker played a minor role in the history of N81881.

The squat, pug-nosed Aeronca Champ is neither glamorous nor distinctive. Its features are almost nondescript and resemble the typical, rubber-band-powered model airplane found in hobby shops. Nor does it go very fast. Aeronca pilots must be content to match the pace of freeway traffic. But the Champ's leisurely stride is a refreshing escape from the frenetic pace of modern life.

Climbing aboard a Champ requires the agility of a contortionist, but once inside, most find the accommodations quite comfortable.

But my mother, who was one of my first passengers, did not consider the Champ very comfortable. As I sat in N81881 at Livermore almost 40 years later, I could still hear her scream reverberating throughout the fabric-covered hull. "Stop tilting the airplane," she shrieked. I continued around the traffic pattern using the shallowest possible bank angle, but she would never again fly with me in a light airplane.

The instrument panel is Spartan, and few Champs are equipped with more than is required. The fuel gauge atop the glareshield is the same design used in the Model A Ford and occasionally allows fuel to leak into the cockpit. The solution is to replace the indicator with a floating cork-and-wire gauge.

That fuel gauge almost ended my flying career before it had begun. The smell of leaking fuel from the 13-gallon tank made me so airsick that I almost quit after my third lesson.

The Champ can be flown solo from the front or rear. Instructors, however,

prefer the student in front where he can see the instruments and get the best view of the outside world. The rear perch remains the domain of the instructor. From there, he can easily bop an errant student on the noggin



Four views of the author with his tried-and-true friend over the years: below, after a forced landing on State Beach in Santa Monica; right, with Schiff's first flying students; on p. 58, a jaunty pose after first solo in 1954; and today.



with a rolled-up chart.

I used to take advantage of the rear seat to sneak short naps on cross-country flights. After all, how far astray can a student get in 15 minutes at 74 knots?

According to a bulletin issued by the Aeronca Owners Club, "Cross-country flight in a Champ is slow but possible." If a Champ pilot becomes impatient when flying into a headwind, he simply turns around and heads the other

way. It is understood that where we go is not as important as the fun we have in getting there. Champ pilots also become topographical experts. The terrain beneath our wings moves so slowly that we have time to study what other pilots see only as a blur.

When the 7AC is flown solo from the front, 40 pounds of baggage may be carried in the canvas catchall behind the rear seat. If the rear seat is occupied, only 20 pounds is allowed.

Starting the 65-hp Continental engine is easy as long as someone is available to hold the brakes while the propeller is turned by hand (a device known as an Armstrong starter). The engine has no pro-

Champ into a strong wind using only the ailerons for steering. I simply took advantage of the adverse yaw effect of the ailerons, which demonstrates why most airplanes need a rudder.

While taxiing into the wind, I would move the control stick full left. The seemingly contrary little Champ would turn right; full right stick caused it to go left. Using only adverse yaw effect, I could S-turn an Aeronca the full length of a mile-long taxiway.

The Champ's large ailerons also produce considerable adverse yaw in flight and require substantial rudder application. This trainer is intolerant of sloppy flying and demands adroit stick-and-rudder coordination to keep the slip-skid ball under control.

The mechanical brake system obviously was de-

my right foot while the rest of me froze.

The takeoff is relatively easy for a taildragger. Cruise altitude, however, is reached in far less time than is required of more powerful aircraft. This is because Aeroncas are not flown very high. The advertised climb rate of 500 feet per minute is incredibly optimistic (300 fpm is more like it), but the angle of climb is surprisingly steep (because of the low forward speed).

Aloft, the Champ is as docile and forgiving as any pilot of the late 1940s could expect. The ailerons are heavy, though, and when deflected during a stall, can induce an unexpected spin. Also, the Champ is slightly deficient in nose-up trim when the rear seat is empty. Otherwise, it is a delightful aerial playmate.

Aeronca never published a pilot's operating handbook for the 7AC, but the pertinent number seems to get passed along from one pilot to the next: climb and glide at 52 knots. If the airspeed indicator seems in error, which it usually is, just fly a comfortable attitude.

Steep turns at Aeronca speeds are remarkable. The Champ can pivot around a pylon in only 10 seconds when in a 60-degree bank, which is impossible in faster machines.

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

Anyone who claims that flying has to be expensive has not been introduced to Aeronca economics. The Champ is inexpensive to buy and fly. A refurbished 7AC with new fabric, new paint, and a low-time engine can be purchased for \$12,000 and sips only 3.5 gallons of fuel per hour during cruise. Depreciation? There is none. Aeroncas probably will continue to increase in value as they have for the past 20 years.

When I brought the Champ to rest at the end of our flight together, I turned off the mags and watched the wooden propeller tick to a stop as I had so many times before. Memories continued to rattle around like pennies in a drum. I closed my eyes, leaned my head back, and remembered with fondness many of the students we had taught to fly and, with relief, many of the mistakes I had somehow survived.

No other airplane taught me as much or as well about flying.

No other airplane ever will. □

Sidebar and specifications continued overleaf



vision for an electrical starter, which is just as well. Most Champs do not have an electrical system either.

The on/off fuel valve, carburetor-heat knob, and magneto switches are in a recessed panel on the left cabin sidewall below the window and between the tandem seats. The 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 pilots accustomed only to tricycle landing gear have no difficulty taxiing a Champ. The steerable tailwheel responds nicely to rudder-pedal movement. Over-the-nose visibility is good so that S-turning to see ahead is unnecessary. The Champ, however, is an outstanding weathervane and tends to turn into the slightest breeze.

I used to win a fair amount of money betting that I could taxi a

signed by a sadist who disregarded the limited dexterity of the human ankle. Operating the two heel brakes requires resting the balls of the feet on the rudder bars. Next, the heels are brought together until cocked at 45-degree angles. The pilot then jabs at the plywood floor with his heels until they find the tiny brake pedals (which are barely larger than postage stamps). The brakes are not very effective and should be used only at low speed or when out of other ideas.

The parking brake handle is under the right side of the instrument panel but should not be used because it never works.

Immediately above that is the cabin-heat control. I learned never to pull this out completely because the heat is so highly concentrated that it would broil



THE FAMILY TREE

Genealogy of a classic

The seeds for the Aeronca 7AC Champion were sown in 1928 when the Aeronautical Corporation of America developed the Aeronca C-2 and C-3, bathtub-shaped monoplanes. These strange-looking aircraft had little more power than a go-cart and performance to match.

Aeronca failed to produce anything noteworthy until it developed the L-3 Grasshopper liaison aircraft that served a military role during World War II.

In 1943, Ray Hermes used the L-3 as the basis for designing the Aeronca 7AC Champion. The affable Champ—known affectionately as the Airknocker—first flew in 1944; was certified on October 18, 1945; and began rolling off the Middletown, Ohio, production line in 1946 with a price tag of \$2,295.

In addition to the 65-hp Model 7AC, Aeronca produced the 85-hp Model 7BC and the 90-hp Model 7CC. The 7DC and 7EC also had 85- and 90-hp engines, respectively, but these were equipped with larger dorsal fins.

When production ceased in 1951, Aeronca had manufactured 20,000 aircraft. More than 10,000 of these were Champs, of which 7,190 were original Model 7ACs. Almost 1,800 of them are still flying.

Aeronca also produced the Aeronca 11AC Chief, which had side-by-side seating, and the Model 15AC Sedan, which seated four, had a 145-hp Continental engine, and performed like a Cessna 170.

In 1954, the newly formed Champion Aircraft Corporation of Osceola, Wisconsin, purchased the Champ's tooling and design rights and began where Aeronca left off. It reintroduced the Model 7EC as the Champion Traveller and in 1956 unveiled the 7FC Tri-Traveller, a 90-hp Champ with tricycle landing gear.

Additional, less popular models includ-

ed the 7GCA Sky-Trac, which had three seats; the agricultural 7GCB Challenger; and the 7HC DX'er, which was similar to the Sky-Trac but had tricycle gear.

Next came the unorthodox 7JC Tri-Con, a strange-looking Champ with a reversed tricycle undercarriage. It consisted of a large, steerable wheel under the center of the fuselage behind the main gear. The ungainly looking aircraft was an immediate failure as was the final model, the 7KC Olympia, which was a bold attempt to restyle the box-like shape of the basic Champ design.

But Champion Aircraft did not give up. In 1961, it introduced the revolutionary Lancer 402 with tandem seating and an engine for each seat. Intended as an inexpensive multiengine trainer, the Lancer was unable to maintain altitude, any altitude, on one engine.

Perseverance paid off in 1962 when Champion Aircraft introduced an aerobatic version of Aeronca's last model, the 7EC. This beefed-up aircraft was called the Champion 7ECA Citabria and was the fore-runner of Bellanca's popular Citabria, Decathlon, and Scout aircraft, which were manufactured between 1970 and 1980.

In 1989, American Champion Aircraft Corporation of Rochester, Wisconsin, purchased the rights to the Bellanca taildraggers and began manufacturing the Decathlon in 1991 and the Scout a year later (see "Delta Scout," March *Pilot*). The Citabria should be available by the end of 1993.

Although no longer a household word in general aviation, Aeronca currently is a major manufacturer of aircraft, missile, and jet-engine components. The Middletown, Ohio, corporation, however, is quick to acknowledge its humble beginning in the era of rag-covered taildraggers. —BS

Aeronca 7AC Champion

Base price, new (1945-1948): \$2,295

Specifications

Powerplant	Continental A-65-8, 65 hp at 2,300 rpm
Recommended TBO	1,800 hr
Propeller	Sensenich, fixed-pitch, wood, 72-in diameter
Length	21 ft 6 in
Height (three-point attitude)	7 ft
Height (level attitude)	8 ft 8 in
Wingspan	35 ft 2 in
Wing chord	5 ft
Wing area	170.2 sq ft
Wing loading	7.2 lb/sq ft
Power loading	18.8 lb/hp
Seats	2, tandem
Cabin width	2 ft 5 in
Empty weight	710 lb
Empty weight (as tested)	743 lb
Gross weight	1,220 lb
Useful load	510 lb
Useful load (as tested)	477 lb
Payload w/full fuel	432 lb
Payload w/full fuel (as tested)	399 lb
Fuel capacity, std	13 gal (all usable) 78 lb (all usable)
Oil capacity	4 qt
Baggage capacity	40 lb

Performance

Takeoff distance, ground roll	244 ft
Takeoff distance over 50-ft obstacle	632 ft
Rate of climb, sea level	500 fpm
Maximum level speed, sea level	83 kt
Cruise speed at 2,150 rpm	74 kt
Endurance w/45-min rsv	2.2 hr
Range, no-wind, w/45-min rsv	170 nm
Service ceiling	12,500 ft
Landing distance over 50-ft obstacle	885 ft
Landing distance, ground roll	295 ft

Limiting and Recommended Airspeeds

V_X (best angle of climb)	42 KIAS
V_Y (best rate of climb)	52 KIAS
V_A (design maneuvering)	64 KIAS
V_{NO} (max structural cruising)	91 KIAS
V_{NE} (never exceed)	112 KIAS
V_{SI} (stall in landing)	33 KIAS
V_{SO} (stall in landing configuration)	33 KIAS

All specifications are based on manufacturer's calculations. All performance figures are based on standard day, standard atmosphere, sea level, gross weight conditions.