

Budget Buy

# By land or by sea

The Aeronca Sedan is a 1940s four-placer that is comfortable anywhere

BY RICK DURDEN

Had the gears of fate meshed differently, the best-selling civilian airplane in history might have been an outgrowth of the Aeronca 15-AC Sedan, instead of its contemporary and competitor, the Cessna 170. Indeed, but for critical decisions made by companies facing the financial abyss when the post-World War II aviation boom went bust, it might be Cessna, not Aeronca, which today makes high-quality thrust reversers and other aircraft components rather than complete airplanes.

Instead, the Aeronca Sedan, a most capable airplane and the only four-place machine that Aeronca offered to the market, never quite made its mark, even though production ran from 1948 through 1951. It has so faded from general aviation consciousness as to become but a footnote in the history of one of the largest airplane manufacturers of the 1930s and 1940s. Yet, its abilities make it a fascinating airplane that should not be overlooked, while its relative anonymity means

that prices have not gone berserk, so about \$35,000 will buy a nice one.

The Aeronautical Company of America appeared in 1928 when some flush Cincinnati businessmen decided that the way to make even more money would be to manufacture airplanes for the public. Employing one Jean Roche, who had been an aeronautical engineer at the cutting-edge Army Air Corps Research & Development facility at McCook Field in Dayton, Aeronca turned Roche's design genius into the single-place C-2, which begat the two-place C-3, which, despite its close resemblance to a bathtub with wings and a powerplant of a mere 36 horsepower, sold and sold and sold because it flew better than anything else around (which wasn't saying much) and could be operated for a pittance.

In the seesaw of airplane development and sales over the next 20 years, Aeronca's fortunes waxed and waned. By 1947, with some 500 unsold two-place Champs and Chiefs sitting about,

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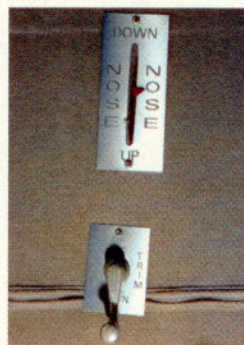


The panel is vintage 1940s, with the instruments clustered in the center for easy accessibility (above). Fuel management also takes place on the panel.

and having just completed developmental testing of the all-metal, low-wing Chum, Aeronca realized the two-place market was effectively dead. It decided to concentrate on a four-place airplane.

In a remarkably short time the Sedan was created and certificated. Its good performance and overall quality, as well as an initial price of \$4,395 (less than a Cessna 170), meant that sales were possible in spite of a truly terrible market. While the idea of a four-seat, aerial family car for customers who had previously purchased Champs or Cubs and needed more seats seemed reasonable, the reality was less than stunning; a modest 561 were built. It may have hurt that it shared a name with a four-place Luscombe that had some interesting development problems.

One of the best markets for the 15-AC proved to be the northern bush operators. They had been desperately seeking to replace their aging and expensive radial-powered monsters with something that was smaller and more efficient, with good low-speed handling characteristics, yet could still carry a decent load. The Aeronca Sedan came to be the answer



to many of their prayers, especially when it proved to be most amenable to operation on floats.

A half-century later, Aeronca Sedans are less likely to be working for their fuel, yet many owners keep them on floats. Just offshore from his Lake Skegemog, Michigan, home rests Jim Lindner's float-equipped 15-AC on a cleverly modified boat hoist. That perch allows for the luxury of preflighting a seaplane while keeping one's feet dry, and gives one the time to notice some of the details of this increasingly rare ship.

Unlike other production Aeroncas, the Sedan has all-metal wings, although most of the fuselage is steel tube and fabric. Each wing is supported by a single strut that attaches aft of the cabin door, making it unobtrusive and endearing the

airplane to photographers. The cabin, with its ample glassed-in area, is slightly larger than its competitors and tapers from top to bottom, giving the Sedan an aura of size and robustness. There is but one cabin door, on the right side, although there is a supplemental type certificate (STC) for a left door. Only the pilot seat is adjustable, and cabin size, while a bit cramped by today's standards, is perfectly adequate.

One happy surprise comes when weight and balance is calculated—with a 2,050-pound gross weight, 33 usable gallons of fuel, and an empty weight of 1,170 pounds on Lindner's airplane (when on wheels), 682 pounds may be carried with full fuel—which means both filling the tanks with fuel and filling the seats with 170-pounders, an almost unheard-of capability. On floats, the gross weight is increased to 2,100, but the 50-pound bump is exceeded by the extra weight of the floats. Lindner, as with most float operators, considers a float-equipped 15-AC to be a two-place airplane with full fuel, once survival equipment, an anchor, and other necessities are aboard.

The panel is charmingly vintage 1940s, with the instruments clustered in the center, so as to be convenient to both seats, if one is to believe the advertise-



The one and only cabin door is located on the right side (there is an STC for a second door); however, the tapering shape of the cabin gives a sense of space and roominess.





Owner Jim Lindner keeps his 15-AC on a modified boat hoist on the shores of Lake Skegemog, Michigan.

ments of the time. Visibility is amazing. The seating position is low enough that one does not have to crane to look below the wing, yet the cowling is so low that there is more than adequate visibility over the nose.

The two wing tanks are connected, so fuel management consists of selecting either On or Off on the panel-mounted selector. Fuel burn in cruise is about 8.5 gph, so with full tanks the six-cylinder, 145-horsepower Continental engine (either the O-300A or C-145) can be counted on to run for about 3.5 hours.

Starting is entirely conventional, and the Continental on Lindner's airplane began its delightful, throaty rumble immediately, something of great value to seaplane operators who often have to shove the airplane away from the dock before hitting the starter. On floats, the Sedan rides solidly, with little tendency to pitch or rock even in moderate chop.

On wheels, the toe brakes on the pilot side, combined with Aeronca's seemingly

innate ability to make airplanes that are easy to handle on the ground, result in the 15-AC's being one of the nicer tail-wheel airplanes to operate. Prior to takeoff the standard runup is completed, recognizing that the gyroscopic flight instruments have yet to come to life because they are powered by a venturi on the side of the fuselage and are only effective once the airplane is at speed.

A gross-weight takeoff in the Aeronca Sedan is not a hurried affair; the rudder becomes effective immediately so directional control on land or water is without surprises, assuming one is determined to keep the airplane pointed straight ahead. Published ground roll is 700 feet, with the airplane flying off at about 55 mph. On floats, application of full power initially results in a clattering roar, but not much else. There is little sensation of acceleration, while what spray there is stays low, away from the cabin and windshield. Full aft wheel is held to start the ascent onto the step, where the floats

will plane most efficiently. The nose pitches up, pauses, then pitches up again as the Sedan slowly heaves its way upward. The nose is gradually lowered until the floats are planing, which generates a short burst of modest acceleration, to about 45 mph. Then acceleration pauses, as if the Sedan is asking the pilot if flight is truly desired, and allowing suitable time for a considered answer. Eventually airspeed creeps toward larger numbers and 52 mph is achieved as the airplane lifts off the water.

At 60 mph indicated airspeed (IAS), the 15-AC is firmly and happily flying. It can be tossed from steep turn to steep turn at that speed, demonstrating remarkable stability and control, one of the reasons the airplane has remained popular with those who appreciate low-speed handling. Sixty mph is also best-angle-of-climb speed, while best rate is 75 mph. Even at gross weight, unless the day is hot or the altitude high, the 15-AC offers a climb rate of better than 500 fpm.

## SPECSHEET

### Aeronca 15-AC Sedan Current market value: \$25,000 to \$35,000 (on wheels)

#### Specifications

Engine .....	145-hp Continental, either C-145 or O-300A
Propeller .....	Sensenich and McCauley, various models
Length .....	25 ft 3 in
Height-level .....	10 ft 4 in
Wingspan .....	37 ft 6 in
Wing loading .....	10.25 lb/sq ft
Power loading.....	14.13 lb/hp
Seats .....	4

Empty weight, as tested (landplane)...	1,170 lb
Max gross weight ..	2,050 lb (landplane), 2,100 lb (floats)
Useful load .....	880 lb
Fuel capacity .....	36 gal (33 gal usable)
Baggage capacity .....	120 lb

#### Performance

Takeoff distance, ground roll .....	700 ft
Rate of climb, sea level .....	650 fpm

Cruise speed .....	105 mph (landplane)
Fuel consumption .....	8.5 gph
Range w/ 45-min reserve .....	310 nm

#### Limiting and Recommended Airspeeds

$V_X$ (best angle of climb) .....	60 mph
$V_Y$ (best rate of climb) .....	75 mph
$V_{NE}$ (never exceed) .....	139 mph
$V_A$ (design maneuvering) .....	91 mph
$V_S$ (stall) .....	50 mph

At altitude, 2,500 rpm generates about 100 mph true airspeed for the floatplane, or 105 to 110 mph for the landplane. Rolling into any turn requires getting used to leading slightly with the rudder, and once established, especially in steep turns, a healthy dose of opposite aileron is needed to maintain the selected bank. The controls would not be considered quick; it takes a noticeable deflection to make things happen, and they are reasonably well harmonized, with the feel being very close to that of its smaller sibling, the Chief. Upon slowing to 55 mph, the feel changes very little; control inputs are only slightly magnified and there is no tendency of the airplane to misbehave.

The ceiling-mounted elevator trim crank is effective, leading to overcorrection at first. Age-induced gear lash produces an effect involving a dead spot when changing direction with the trim crank, so very little happens, followed shortly thereafter by a great deal happening. Every power change requires retrimming because the propeller slipstream and downwash from the wing have a powerful effect on trim, requiring much adjustment when changing speed.

While maneuvering speed is 91 mph, 60 mph is the jack-of-all-trades speed; if the area is confined, or if there is an obstruction, hold 60 mph and a spiral de-

scent can be made, or a turn can be made almost immediately after liftoff with little fear that the airplane will fall out from under the pilot. Stall speed is 50 mph (there are no flaps; the high lift wing just doesn't seem to need them). The stall, whether straight ahead or turning, is benign. There is little tendency to drop a wing, even with the wheel held full aft, attempting to aggravate things. The rudder, and to a lesser extent, the ailerons, remains effective.

Returning for landing, there is little to do to prepare. No fuel tank to switch or propeller control to fiddle with; simply apply carb heat opposite the point of desired touchdown, go to full rich mixture, if desired, and slow to about 80 mph. On final, 70 mph works well, with some power. The Sedan slips very nicely, obviating any need for flaps. Power is reduced to idle in the flare and a slightly nose-high attitude is selected for float landings. Properly done, the water begins to tickle the underside of the floats shortly after the throttle is fully back to idle.

On wheels, the Sedan issues its own challenge to land well in three-point attitude. If the flare is entered below 70 mph, full up elevator may be inadequate to get the nose high enough to roll the tailwheel on with the mains, resulting in a less-than-pleasing bit of

bounding between the tailwheel and main gear. For a short field, 60 mph is selected with the understanding that a lot of power is required to break the descent and flare. Wheel landings are typical Aeronca: Flare slightly tail low with power at idle, then when the mains start to roll, relax the back-pressure and let the trim raise the tail and reduce the angle of attack. The Sedan stays on the ground, and the effective rudder and toe brakes allow a skilled pilot to handle fairly strong crosswinds.

Back at the dock, it's difficult to accept the end of a flight in a Sedan. It does its job well, without flash or arrogance. When not flying, you can console yourself by visiting the numerous Web sites and support groups dedicated to Aeroncas, and maybe even consider one of the STCs for the installation of larger engines. Or, maybe just stroll out to the deck and gaze at the Sedan there on the boat hoist as the setting sun's last rays glint off it and remind yourself how fortunate you were to fly it, and look forward to the next time. **ACPA**

**i** Links to additional information on the Aeronca Sedan may be found on AOPA Online ([www.aopa.org/pilot/links.shtml](http://www.aopa.org/pilot/links.shtml)).

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