

# The Curtiss Junior

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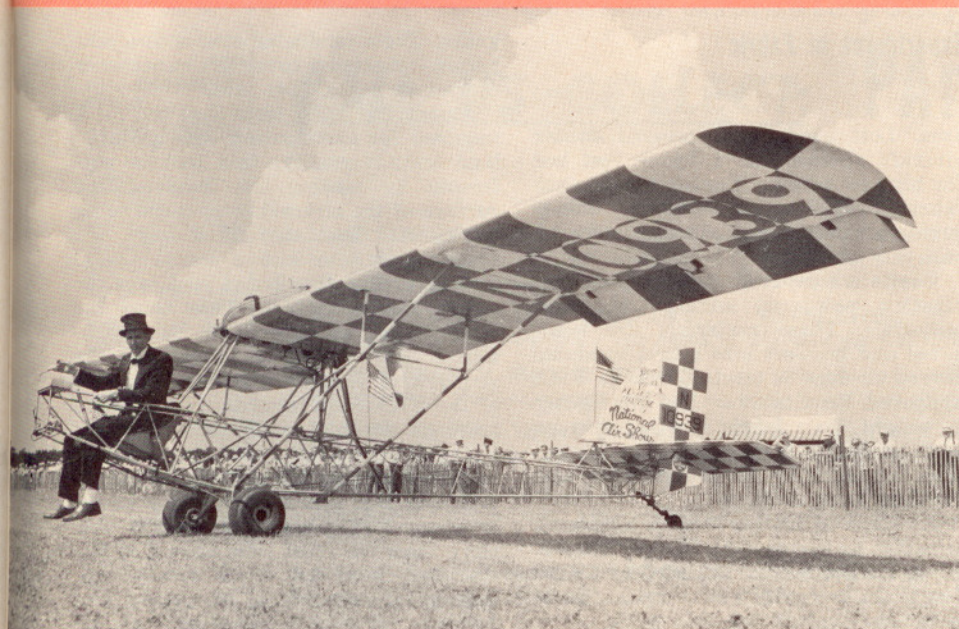


Standard Curtiss-Wright Junior of 1931 used drag strut to replace wire as a required modification. Note external cargo roped to fuselage

Photo by A. U. Schmidt

Stripped of fuselage fabric and substituting a modern flat-four engine, this Junior earns its way today as a flying circus spectacle

Photo by the author



One of the most unique production airplanes from a design standpoint was the ultra-light Curtiss-Wright *Junior* of 1931. Like the Aeronca C-3, Alexander *Flyabout*, and American *Eaglet*, it was representative of the new design concept that was developed to make cheap flying available to the average man through the efficiency of the monoplane configuration combined with the new low-powered engines available in the 25-50 h.p. range. The fact that this movement did not succeed on a grand scale cannot be blamed on any shortcomings of the airplanes themselves but only on bad timing. The aviation industry in general and the manufacturers of sport planes in particular took a terrible beating during the economic depression that followed the stock market crash of 1929.

The *Junior*, carrying the factory model number CW-1, was built in St. Louis, Mo. A two-seater, it was a parasol-wing pusher with a three-cylinder

45 h.p. Szekely engine (pronounced Say-kai) mounted on top of the center section. The 10-gallon fuel tank formed the front part of what could be called the nacelle and was fitted with a Model A Ford fuel gauge that the pilot could read from the front cockpit by looking over his shoulder. The general configuration was similar to the post-World War II Republic *Seabee* and the factory did develop the *Junior* into a 90-h.p. amphibian called the *Teal* but did not place it in production.

The forward location of both cockpits with respect to the wing and engine gave the occupants visibility and freedom of access unmatched by contemporary designs. When flown solo with a shotgun mounted on a swivel ahead of the front cockpit, the *Junior* was one of the best varmint-hunting planes ever built, especially if powered with a bootleg engine of higher horsepower. With a good wind blowing on the prairie, a hunter could make an upwind run

on a coyote, shoot him, land short and roll up to him, and then reach out and toss him into the rear seat without even getting out of the airplane.

Construction of the *Junior* was thoroughly conventional for the time. The fuselage and tail surfaces were welded steel tubing and the wings were wood, with fabric covering over-all. Flight characteristics were sluggish by modern standards, with reaction to the controls being quite slow as could be expected on a big powered glider. Considering the weight and horsepower, however, the performance with two people aboard was remarkable, and was achieved by the now nonexistent expedient of using plenty of wing area to bring the wing loading down to a feather-like 5.5 pounds per square foot (post-World War II Aeronca *Champion*, 7.76 and 1959 Cessna 150, 10 pounds per square foot).

Naturally, the majority of the few *Juniors* remaining today are in the hands of the antique fans, whose major problem lies in obtaining parts for the orphan Szekely engine. Some owners consider the restrictions associated with an experimental license a small price to pay for the unquestioned reliability of a modern 65 h.p. Continental or Lycoming engine. One *Junior* so modified is used as a low-speed camera plane in Hollywood and a couple of others have been stripped of their fuselage fabric and do comedy routines at air shows, where they are often erroneously billed as "1912 Pushers." Most of the spectators don't know the difference and enjoy the show but the true antique lovers cringe at such degradation of a classic.

## Specifications

Span	39' 6"
Length	21' 3"
Wing Area	176 sq. ft.
Gross Weight	975 lbs.
Power Plant	Szekely SR-3 45 h.p.
High Speed	80 m.p.h.