



Fairchild 22C-7E, with front cockpit covered over and a removable sliding hatch over rear cockpit. Although dressed up with wheel pants, this ship still uses old spring-leaf skid



Fairchild 22C-7D, with upright four-cylinder, air-cooled Wright "Gypsy" engine  
*Photos by the author*

|               | 22C-7D               | 22C-7F                       |
|---------------|----------------------|------------------------------|
| Powerplant    | Wright Gypsy 90 h.p. | Warner Super Scarab 145 h.p. |
| Span          | 32'10"               | 32'10"                       |
| Length        | 21'11½"              | 22'0"                        |
| Area          | 170 sq. ft.          | 170 sq. ft.                  |
| Gross Weight  | 1550                 | 1750                         |
| High Speed    | 114                  | 140                          |
| Cruise Speed  | 94                   | 115                          |
| Landing Speed | 44                   | 48                           |
| Cost          | \$2,475 (1933)       | \$5,350 (Deluxe G)           |

# The Fairchild 22

*The 22 was a sporty transition between the heavy biplanes of the 1920's and the light monoplanes of the 1930's*

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**T**he airplane that became widely known as the Fairchild 22 had a rather complicated identity problem when it appeared early in 1931.

It was designed and built by Kreider-Reisner Aircraft, Inc., a division of the Fairchild Aviation Corporation. Kreider-Reisner had been an independent firm since its founding in 1925, and had produced a well-known series of *Challenger* biplanes before joining Fairchild in April 1929. At this time the *Challengers* were given new numbers, prefixed by the letters K-R to indicate their origin, and the new monoplane became K-R 22.

The separate Fairchild Airplane Manufacturing Company and the Fairchild Engine Company, controlled by Fairchild Aviation, were taken over by the aviation corporation, combined, and renamed American Airplane and Engine Company. The airplanes became *Pilgrim* and the engines "Ranger." Fairchild later regained its identity as Fairchild Aircraft Corporation and the airplanes were again Fairchilds, this time without K-R prefixes.

The 22 was introduced as a training and sport type to fill the gap between the heavy classical biplanes of the late 1920's and the new light monoplanes designed for the new 36-65 h.p. engines that were becoming available. The 22 was in fact the perfect transition design from the old concept to the new, as it was in effect a standard biplane without the lower wing. The open cockpits were in the same locations, with the pilot aft and the passenger under the wing and right on the center of gravity, and the familiar top wing and center section struts were right there in their accustomed places.

The early 22's used most of the standard air-cooled four-cylinder in-line engines available at the time, starting with the inverted 75 h.p. Michigan (later Roché) Rover, in the 22C-7; the inverted 90 h.p. "Hi-Drive" Cirrus in the 22C-7A; the inverted 125

h.p. Menasco C-4S in the 22C-7B; and the upright 90 h.p. Wright "Gypsy" in the 22C-7D.

One unusual feature of all the in-line 22's was the aileron installation. The corrugated metal surfaces extended for the full length of the wooden wing and were contoured into the center section cutout. These early 22's were extremely popular subjects for the builders of rubber-powered flying scale models because the long nose, combined with the parasol wing, gave good balance, a long rubber motor, and good stability.

As with many designs produced over several years, progress stepped in to make a big alteration in appearance. The 22C-7E and F models substituted 125 h.p. and 145 h.p. Warner Super Scarab radial engines for the in-lines, and covered them with full N.A.C.A. cowlings. This shortened the nose, and while the basic steel tube fuselage structure remained the same, it was fattened up with superstructure to match the circular form of the cowling and continue this contour to the tail.

The ailerons on the F were redesigned to more conventional size and extended only half-way from the tip to the center section. When it was desirable to fly the 22 as a single seater, a metal cover could be fitted over the front cockpit to improve the streamlining. The 22C-7G was identical to the F except for starter, electrical system, and other extras that added nearly 350 pounds to the gross weight.

The 22's were in relatively large-scale production for the depression years 1931 through 1935, over 200 having been built. Most of the estimated two dozen on hand today are Warner-powered, some being converted from in-line models due to the engine spares problem. Some of the bona-fide Warner models have been modified to the lines of the earlier types by deleting the side fairing structure and the engine cowling. ●