



STEVE WITTMAN'S "BUTTERCUP"

Another classic scale design from the early days of R/C, resurrected from the July 1953 issue of *Air Trails* magazine. A great "Sunday Scale" model for glow or electric and three-channel radio.

Continuing our revival of some of the ageless model designs published in the great former model magazine *Air Trails*, we hereby offer Frank Van Buren's version of Steve Wittman's "Buttercup," which appeared in the July 1953 issue.

Many design features which later appeared in the currently well-known Wittman "Tailwind," become obvious as you study the drawings, which were developed from authentic scale-views by S.C. "Cal" Smith. Note the single-strut tubular main gear and the "indented" wing leading edge.

The original two-place "Buttercup" was designed by and built under the direction of Steve Wittman, and was powered by an 85 horsepower Continental. The tube-type landing gear strut allowed light flexing in all directions, and is easy to duplicate in scale with simple music wire. Wittman apparently used this light plane as a "hack" to accompany his two midget racers, "Buster" and "Bonzo" to various races. Buttercup was used to ferry spare racing props, extra wheels, other spare parts, and tools.

The 45-inch span model plans by Van Buren show some of the early radio control system installation, which can be observed for appreciation of what we have today, but otherwise ignored. Proper elevator and rudder hinge line locations are fairly obvious. Just install double spars at these points and add hinges. The lightweight but warp-free tail surface construction is interesting, and not seen before by this writer. Note that the 1/16 x 1/4 stiffeners lie between the two outer layers of 1/16 sheet. The outside edges are pulled together and glued, forming a symmetrical section.

Nothing complicated about the wing.

Additional rigidity could be obtained by sheeting the under side of the leading edge back to the front spar, undercutting the ribs by the sheeting thickness to accommodate the sheeting. To complete the D-tube effect, add webbing from the spar to the top sheeting. Install webbing before adding the top sheeting. Note the continuation of the top fuselage stringers onto the top of the wing center section.

The fuselage is a simple box of long-erons, uprights, and cross-pieces. The non-functional wing strut attach points,

not shown on the fuselage, are at the intersections of the two non-vertical uprights at the front and back of the door panel.

For those who want to enlarge the plans to quarter-scale, you're on your own, as the article gave no indication of the span of the original. Plans for a F/F or U/C version were in the same issue, and if these were one-inch scale, it came out to 25 feet, which could be about right. Would someone help us on that?

Whatever size you decide on, Buttercup will be easy to build and fun to fly!

