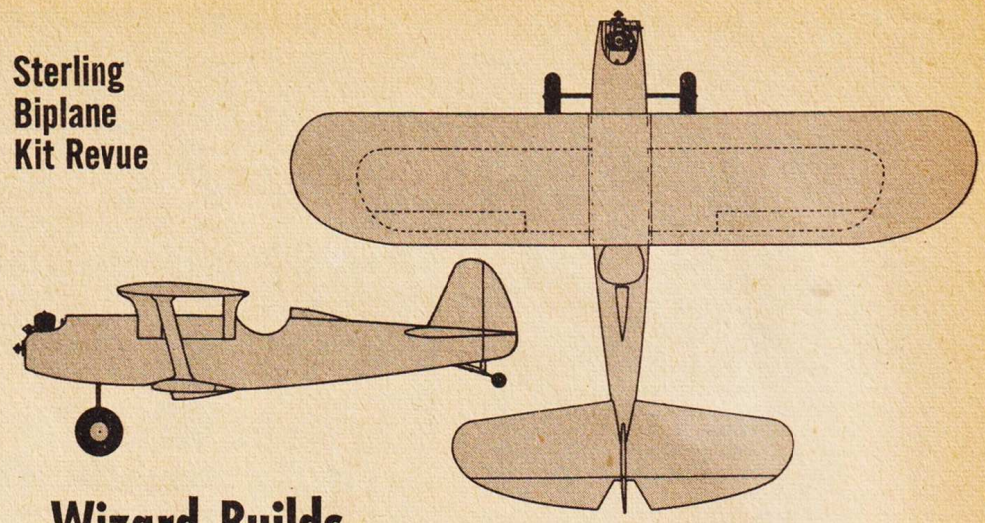
Sterling Biplane Kit Revue



# Wizard Builds Three Ways

■ As might be expected, coming from a firm which has long specialized in scale designs, the Wizard bipe by Sterling Models (Philadelphia, Pa.) is very scale like in appearance, its open single cockpit and I-type interplane struts taking one back to pre-World War II days. The plane is multi-purpose, intended for single or multi-channel R/C, sport free flight or control line operation.

It is farily compact, too, for a job that can carry 8-channel radio equipment; upper wing span is 54", lower span is 40" and the two chords are 10 and 6½". This gives a bit over 733 sq. in. area, not counting the area of lower wing blanked by the fuselage. Total length of the fuselage and rudder is 36".

Engine size recommendations from the manufacturer are: free flight—.19 to .29; for control line—.29 to .60; for single channel R/C—.15 to .29; for multi R/C —.29 to .45. The plans show a K&B 29S R/C engine and the motor bearers are spaced for this particular unit; they can be shifted to accommodate any other motor you might prefer.

The fuselage is an all balsa assembly with ⅛" sheet sides and 3/32" doublers from nose back to wing trailing edges. A solid balsa block assures strength to take those inevitable tail-high landings, forming the underside of the fuselage nose all the way back to the ply bulkhead which holds the landing gear. There is quite a bit of plywood in the model, six die-cut sheets of it, in fact; much is used for the various wing struts, other pieces are for heavily stressed bulkheads, wing spar joiners, servo and connection plug mounts.

The cowl area between the center section struts is removable. Under it is installed the receiver, motor control servo and much of the wiring in the model. Rudder and elevator servos go in the cockpit. Batteries, carried in a compartment under the fuel tank, are reached via a fuselage bottom door just to the rear of the landing gear.

The gear is of single strut style—two pieces of ⅛" music wire bound together, which come bent to shape. Veco wheels 3½" in dia. are recommended, while tail wheel is 1-⅛" dia.

The rudder and fin are 3/16" solid sheet balsa, but the stab is built up in conventional manner. Elevators are 3/16" solid balsa. Fin and stab are cemented permanently to the fuselage. The kit includes suitable cloth tape for rudder and elevator hinging, plus plenty of wood and music wire to make all the push rods required for the entire multi radio installation.

Both wings employ a semi-symmetrical airfoil section, built-up with die-cut ribs held on a two-piece front spar, solid rear spar, shaped and notched trailing edges, square leading edge (trimmed to shape after assembly). Both wings have sheeted forward areas, top and bottom, and all ribs cap-stripped. Plans show aileron installation in the lower wing. Wedge shaped balsa aileron blanks are provided, as well as wire and aluminum tubing to make the necessary hinges. When ailerons are fitted, the servo to operate them fits partly inside the wing, with a lower cover made to resemble an underwing radiator.

The radio installation instructions are exceedingly complete, in fact, complete wiring drawings are given for single channel radio (using Babcock Mark III receiver and Citizen-Ship 2R2H servo) and for "full house" multi (using Citizen-Ship MSR-8 receiver and four Bonner Duramite servos). Complete color code and every wire in the installation is illustrated, as well as connections to all the relays in the MSR-8 receiver. Full details of steerable tail wheel and brake are given.

The big plan sheet (36 x 44") is "loaded" both sides with full size drawings, dozens of assembly and detail sketches, and many thousands of words on building, finishing, radio installation, flying.

Aside from the actual radio equipment and the engine and prop, the following items to finish the model as recommended by Sterling are purchased separately by the builder: two Veco 3½" wheels; one 1-⅛" tail wheel; Bonner nylon tail wheel bracket (if steerable tail wheel is desired) and rudder horn; Veco T29D clunk fuel tank; Veco elevator horn; silk or nylon covering (kit includes Silkspan covering); dope and cement; 1/32" sheet brass or tin can metal to make engine and servo nut plates, plus nuts for latter; fuel tubing; rubber bands to hold wings; thread and fine wire for binding various parts together. Kit includes all parts for aileron linkage and hinging, spade bolts for mounting landing gear, nuts and bolts for mounting engine.