



BUILDING AND FLYING INSTRUCTIONS:

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 This model was designed by Willard A. Blanchard, Jr., 1954 National Model Champion. The design is particularly noteworthy, not only because of its outstanding performance record, but also because of the simplicity of structure. The practical extent of aerodynamic efficiency is the rugged but light framework and the accessibility of the Paycoo dummy and cargo.

BEFORE BEGINNING THE ACTUAL CONSTRUCTION OF THE MODEL, STUDY THE PLANS CAREFULLY. THEN FAMILIARIZE YOURSELF WITH THE DIE-CUT SHEETS OF Balsa and the other materials included in the kit. Use a flat wooden working surface free of warps for all your work. Tools are very important, so keep available a sharp-cutting model knife, pliers, sandpaper, and pins.

FUSELAGE:
 Step 1. Cement spliced sections of each fuselage side together (F-12 and F-17). Then join the fuselage sides together with formers F-3, F-2, F-11, in that order. Cement remaining fuselage bulkheads in position. (F-6, F-7, F-8, F-9, F-10).
 Step 2. Begin by cementing firewall former F-1 to F-2, sandwiching in the single strut landing gear which is formed to fit into grooved slots. When dry, drill through for engine mounting holes for the engine you intend to use. Secure nuts to inside face of former F-2. Then add top and bottom cover sheets, F-18, F-19, F-20, F-21, F-22. Cement the stabilizer platform in place, as well as the 1/4" sheet fuselage fairing and cabin base (F-15) in position.
 Step 3. To the cabin base cement formers F-4 and F-5. Then add die-cut cabin sides F-13 and F-14, and cabin fairing F-16. When dry, cement F-24 to the top of the wing mount platform. To complete cabin, first add 1/8" sq. balsa reinforcement strips and 1/8" diameter wing dowels. Then cement the wrap-around windshield in place. The cowl is carved from the soft blocks supplied, and the top half is made removable, while the bottom half is securely mounted.

WING AND TAIL SURFACES:
 Sketch 1. Construct the center panel frame first, and remember top maximum wing efficiency, raise the inside edge of the trailing edge 1/8" to obtain the desired "droop" in the trailing edge. In constructing the tip panels, the trailing edge is first cut to the outline shape from straight sections of 1/8" x 3/4" tapered balsa stock, then entrained and joined together. Having completed the basic structure, join the separately constructed wing panels with polyhedral gussets for the center panels, and tie panels. To complete, and rise a/c and r/c at all polyhedral breaks.
 Sketch 2. To complete the entire wing, begin by applying the wing sheeting to the top of the leading edge along the entire span, starting with the center panel first. When completed, sheet the wing construction and cap all the wing ribs as shown and add the 1/4" sheet balsa tips.

STABILIZER CONSTRUCTION DETAIL:
 The stabilizer construction is similar to that which is used in constructing the wingtip panels. Exercise care in joining the stab sheeting at the center to assure maximum strength and rigidity. Cement hooks in position as indicated on the drawing for dethermalizer assembly.

COVERING AND ASSEMBLY:
 BEFORE STARTING TO COVER, re-cement all areas which do not look sturdy, and when dry, trim off the excess cement and sand all surfaces smooth.
 Covering material is supplied for all the surfaces, even those prefabricated entirely of balsa. To apply the covering material use a mixture of clear dope and cement, with approximately two parts dope and one part cement, and spread this adhesive with a brush.
 Since the model is not a scale replica, the originality used in choice of color scheme is left to the discretion of the individual model builder. Remember, if you are using Glu-plug engines, it will be necessary to use fuel proof dope throughout the entire finish.

FLYING:
 The model has been primarily designed for PAA-load flying. However, performance as a regular free-flight is comparable with most "1/24" scale designs, using 2 ounces of ballast in place of the "pilot" and "cargo".
 For the "America" Class A, 4 ounce dummy is required, plus a 1 ounce cargo load. The position of the cargo load is determined during preliminary gliding tests, while it is temporarily secured to the outside of the fuselage. Once the position has been determined satisfactorily, the model is ready for preliminary power tests.
 As a rule, do not start the cargo hatch as preliminary flight tests might warrant a change in the angular setting of the flying surfaces. Thus causing the best position of the cargo to be moved forward or rearward slightly. Once the model has undergone preliminary flight tests, and all the essential power and glide adjustments have been made, we can then cut out the cargo hatch as illustrated at the most desirable position.
 Before testing, check the wing and horizontal tail carefully for warps. Any warps may be removed by holding over a steam bath, and gently warping against the warp.
 Spin the horizontal tail platform so that when the model is viewed from the rear, the horizontal tail is approximately vertical to the left hand landing gear. With rudder tab straight, the ship should glide in a left hand circle of about 50 foot diameter. If the circle is too tight, decrease the stabilizer tilt, and vice versa. If the model glides with the trailing edge of the stabilizer, and vice versa. When the glide is satisfactory, install a 6-inch diameter, 3-inch diameter propeller backwards, and adjust the timer for about 3 seconds. The ship should climb somewhat steeply in a left hand circle. If the circle is too tight under power, bend the rudder tab to the right and increase the stabilizer tilt to maintain the glide turn.
 When the glide and low-powered flight paths are satisfactory, put the propeller on the proper direction, and make a full-power test with a short 5 second motor run. The ship should climb very fast and steep in a moderate left turn with very little bank. Transition from power to glide should be very smooth.
 When properly trimmed, and assuming you've engine is one of the several "hot" .049's available, this ship will do a considerable amount of 1/24" scale flying. In dead air, it may be expected that a combination of climb-angle and turn may be achieved by keeping in mind these two items:
 1. Stable power and still have large effect on glide turn, and negligible effect on power flight.
 2. Rudder tab deflection has a large effect on turns under power, and small effect on gliding flight.

DESIGNED FOR FREE-FLIGHT AND PAA-LOAD FLYING!

PAYEE

DESIGNED FOR 1955 - 1956 RULES.

Designed by: Woody Blanchard - 1954 National Champ.

DRAWN BY PAUL DELGATTO KIT ENGINEERED BY BILL EFFINGER

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 WEST HEMPSTEAD, NEW YORK, U.S.A.

FULL SIZE PLANS FOR .049 TO .075 ENGINES WING AREA 255 SQ. IN. WEIGHT: 6 OZ. EMPTY