

• The Old White Airplane •

By RAE FRITZ & FERD CHAPPA
Everyone's most favorite model
is the old reliable, consistent per-
former that is always ready to go,
and do a good job of it.

BUILDING IT

Construction is extremely simple, so we'll just hit the high spots. One word of caution. Although this is a very simple airplane, it should not be your first. Sound airframe construction and alignment are critical on *all* stunt planes . . . including this one.

There are only five basic steps in construction. Cut the parts out; build the wing; build the tail surfaces; build the fuselage; put it all together.

If you prefer to build your own tank, then you have six steps. We do. Ours are made of cut-down Ronson lighter fluid cans. They are four ounces and run our Foxes about six to seven minutes.

A stock tank 1x2x4 inches will work just fine. You will, however, need to modify the vents as shown on the plans . . . and make sure that the tank is as clinically clean as you can make it.

Look at the plans and you'll see that when we say simple we mean simple. In cutting out the parts, you have only to cut (or sand) the wing ribs, fuselage sides, plywood bulkheads and cowling pieces. The fuselage sides are straight on top and require only a straight cut on the bottom, wing cut-out, and cowling cut-out.

The elevator is made up of a 1/4x1/2 frame with 1/4x1/16 ribs, then simply sanded to shape after construction on a flat surface. Because of the lifting sur-

face on the inboard side of the rudder it starts out a little thicker. Rudder frame is 1/2x3/8, with ribs 3/8x 1/16. It also is sanded to shape after assembly.

For the past ten years, our plans have been two pieces of straight 1/2 inch plywood. One piece has the wing drawn on it; the other has the tail surfaces.

We build our wings flat on our plywood plans. If that sounds too sophisticated, you can use anything you have that is flat to build your flying surfaces on. This is the only critical area in building the airplane.

Flying surfaces must be straight.

The engine mounts, F-1, F-2, tank and landing gear are built up as one unit using epoxy. Now is the time to mark and drill the mounts and to trial mount the engine using blind mounting nuts.

Remove the engine and install the filler block. This will be hollowed out after the fuselage assembly. Drill two holes in the inboard fuselage side to accept the tank vents, then epoxy the sides to the mount assembly. Build it upside down, lay a brick on it and you won't have any alignment problems.

There are no formers as such behind the bulkhead that serves as the landing gear mount. Put a 3/16 shim between the fuselage sides at the tail, squeeze the sides together, and glue. That'll give you enough room for the control horn to clear. The braces (see plans) at stations 4 and 5 are only to prevent the push rod from bowing during violent up-elevator maneuvers.

Turn the fuselage upside down, again on a flat surface, and insert the com-

pleted wing in its saddle. Now measure from the center of the leading edge and the center of the trailing edge to the top of the fuselage (resting on a flat surface). Make sure the wing fits in the fuselage saddle perfectly straight. If it doesn't, trim away the fuselage at the wing cut-out until the unit is perfectly level. When you are sure, glue the wing into the fuselage upside down, making sure one more time that it is straight.

Now, do essentially the same thing to the elevator . . . also upside down on a flat surface. Before you glue the elevator in, carefully bend the push rod to fit, making sure that the flaps and elevators are 0°-0°. Now glue elevator in position.

Insert top and bottom braces at stations 4 and 5. Don't bring them in direct contact with the push rod . . . just close enough to prevent the push rod from bending.

The basic airframe is now ready for the 1/2 inch top block. Add top block and shape rear of top block and rudder to the same airfoiled contour.

Add wing fillets, 1/8 inch bottom sheeting, and plywood cowl mounting plate. Mount engine, shape cowling blocks and cut holes for exhaust and venturi.

Weight is not supremely critical, however, the lighter you build your White Airplane the better it will fly. We've seen them from 32 oz. to 50 oz. The heavy ones are, in our opinion, too heavy, although they fly just fine. White Airplanes don't tend to build heavy . . . unless you're partial to using oak.

Finish the White Airplane any way

that turns you on. There are hundreds of excellent articles on techniques available.

As we said, the White Airplane is adaptable and handles modifications well. We've never seen a White Airplane that hasn't been changed "just a little."

Matter of fact, we're changing a pair of them right now "just a little." They have foam wings (cut by Rae Friz), muffler pressure, adjustable leadouts and tip weights, moveable rudders and wing mounted landing gear. A couple of trick handles for in-flight adjustment are also in the works.

The Old White Airplane is obviously not a "new wave" ultra-sophisticated airplane. It is not the ultimate stunt ship. It was never supposed to be. It will, however, fly better than 90% of the pilots who fly it.

This aircraft is your basic Precision Aerobatic pilot's "teething ring." It will teach you how to win . . . gracefully and often. When you are ready for one of the more complex and more sophisticated Precision Aerobatic airplanes, you will know it.

FLYING IT

Adjustments are standard. Make sure the wing is straight and that the aircraft balances on the CG shown. Weight the nose if it is tail heavy, etc. If the outboard wing flies high or low, bend the flaps. This is a minor adjustment and will *not* cure a badly warped wing.

Engine should run very old fashioned. It should four cycle, just on the verge of breaking into a two cycle and run that way until the last few laps when it will go lean, then stop.

Fly the airplane a lot. It's rugged, durable and reliable. Learn the pattern and everything you can about the airplane/engine combination.

You will meet fliers who are better than you. Some will have exotic engines and airplanes. Some of the engine/airplane combinations will even fly better than yours.

You should, however, learn and develop the most devastating quality a competitor can have. Consistency.

WINNING WITH IT

It is our belief that consistency is the cornerstone to winning. This includes *any* competition, from a Camelia Show to Motocross Racing.

When you get to a meet, be ready. If you aren't ready when you get there . . . actually before you get there . . . you will never be ready for that particular meet.

Have your flying box in order and your act together. See that you have every piece of equipment you need, plus at least one spare of each. That includes everything! Engine, lines, handles, batteries, props, plugs, line clips. Everything!

Respect your judges and don't waste their time. They are not sitting in the scorching sun to watch you beat on a balky engine. The same goes with cleaning out a dirty tank, adjusting your handle, gluing parts back on, and any other non-professional nonsense.

When it is your turn to fly, fly. Know how everything works and do it right the first time.

If you have to crank your engine right side up, do it that way. Don't try

to start it inverted.

Make sure your tank is full *before* you get on the flight line and when you go out there to fly, don't take along four steamer trunks full of gear. Take everything you need and as little as you can get along with. Make sure that everything is tight, that your engine is firing, your batteries are good and that your engine's needle is pre-set.

The idea behind this drill is to fire the bird up and get it in the air. No muss, no fuss, no excuses. Just do it!

Your professional attitude will impress the judges. Be sharp, be efficient, be airborne.

Once they know you mean business, you've got them hooked. Keep them hooked. Show them your stuff. Knock their eyeballs out.

To this point we have said nothing about luck. Luck is not a component you can bolt on, a piece you can glue in or a fabric you can cover with. There are no lucky lines, handles, glow plugs, or sacred wheel parts.

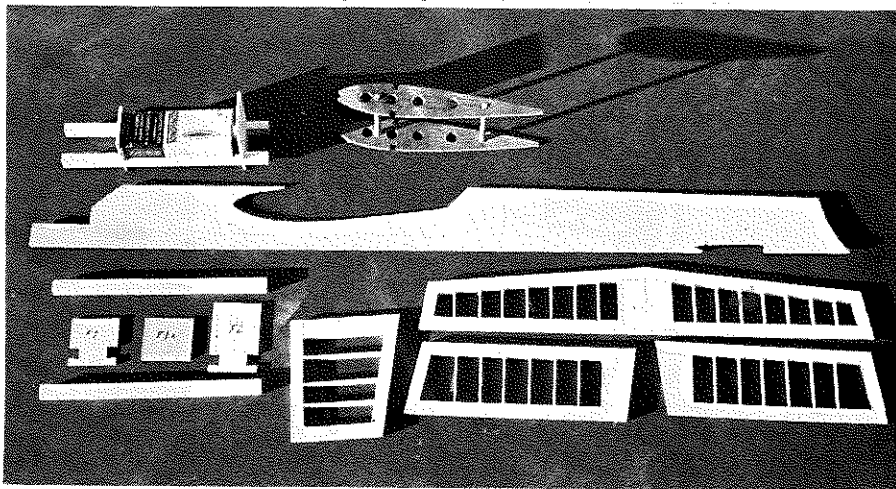
If you compete often you will often run into things you can't explain. Sometimes they're good; sometimes not.

Figuring luck into your equipment or strategy is like spending a paycheck you don't have.

If you are physically and mentally prepared to win; if your equipment is ready; and if you have left as little to chance as possible, you have made all the luck you can make.

Now, all you have to do is take your good straight airplane with your Fox .35 hung on the nose and fly the wings off of it.

Good hunting.



"Look at the plans and you'll see that when we say simple, we mean simple." Characteristic of a well designed model airplane. Make up a complete pre-fabbed "kit" and then start building.

MODEL BUILDER

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