

TOP FLITE

# Stinson

By John Tanzer

# Reliant SR-9

*If you like to build, this is a giant scale R/C project that will end up as a classic, elegant model. Flaps optional.*

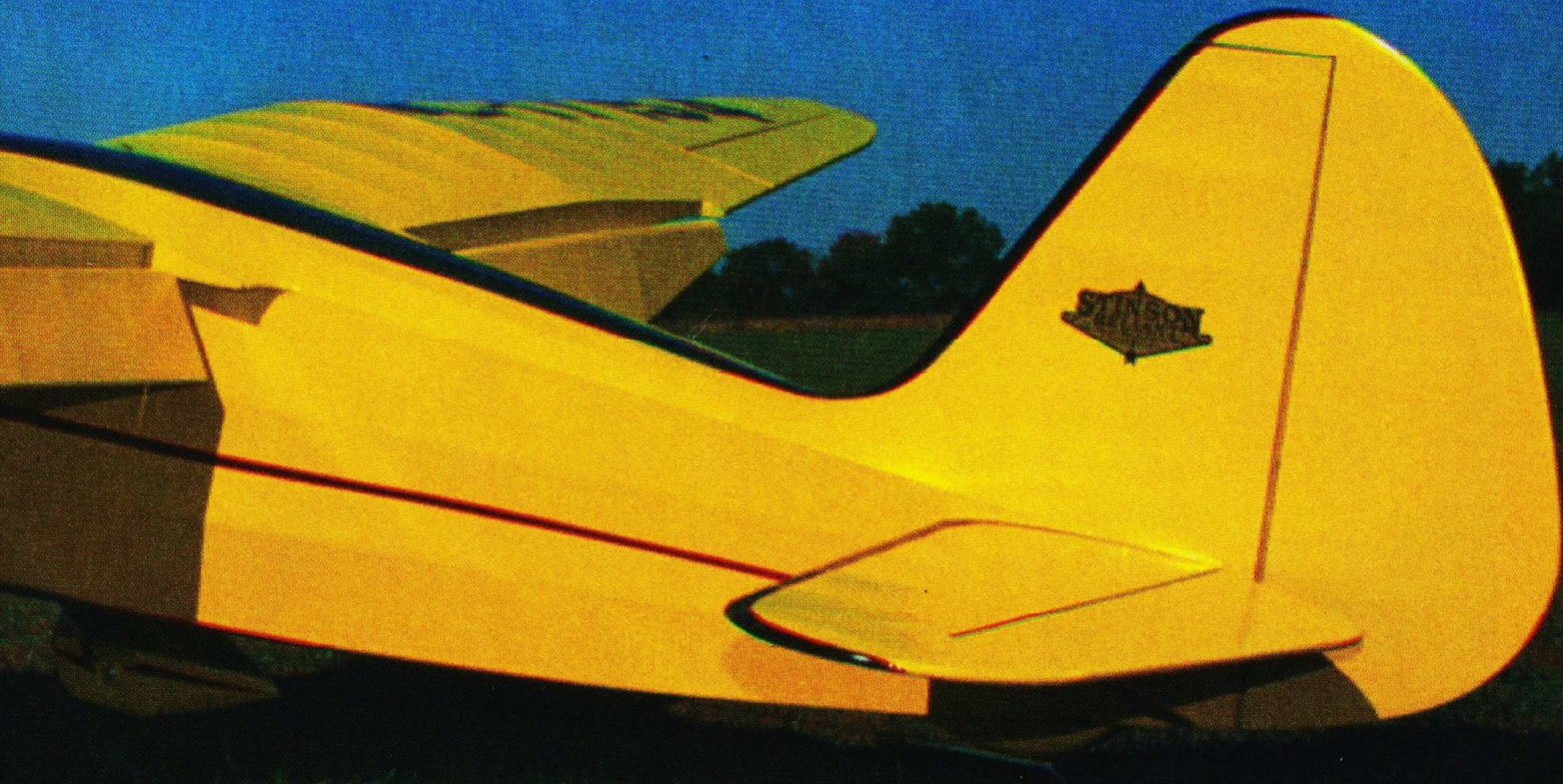


Allow a healthy chunk of time if you decide to build the Stinson (at left). The kit comes with a complete load of detail accessories, and you can add a full cockpit (above) and fabric covering.

Though the flaps are optional, John says include them. They will really help slow down the landings. And, yes, that much flap is used and was needed to slow the plane down. About 10 degrees was helpful on take-off.



PHOTOGRAPHY: MICHAEL RAMSEY & JOHN TANZER



**T**he editor of FLYING MODELS, Frank Fanelli, called me one day last December and asked if I would like to build a Top Flite Gold Edition giant scale Stinson *Reliant* for a kit review. At first I hesitated and said I would think about it. I don't usually build kits. The last TopFlite kit I built was the .60 sized *Corsair* 16 years ago. I still have it and still fly it, so here was an opportunity to build my favorite type aircraft and see how kit design has improved.

I called Frank back said I would be happy to do it, so please send the kit out to me as soon as you can as my work bench is clear of projects. My work bench never stays clear for long. When I finish one project I start a new one right away.

The TopFlite Gold Edition Stinson SR-9

*Reliant* is a big 1/8-scale model of the third plane in the gull wing series, each model year had some minor changes made to it. The first production gull wing was the SR-7 in 1936. The second production gull wing *Reliant* was the SR-8 in 1937. The third production gull wing *Reliant* was the SR-9 in 1938; after this came the fourth and last of the gull wing *Reliant* series the SR-10 in 1939. Some later models were used by the US army and the British Royal Navy as the SR-10-2 or AT-19.

The kit arrived in a large box in January, 2000. The first thing I did was to take everything out of the box to check it—a big mistake. I would never get it all back in the box the same way. There are four sheets of rolled plans and a 56-page instruction manual, lots of balsa, plywood

and hardwood pieces. There are a large number of ABS plastic pieces with which to make the 18 blister radial engine cowl,

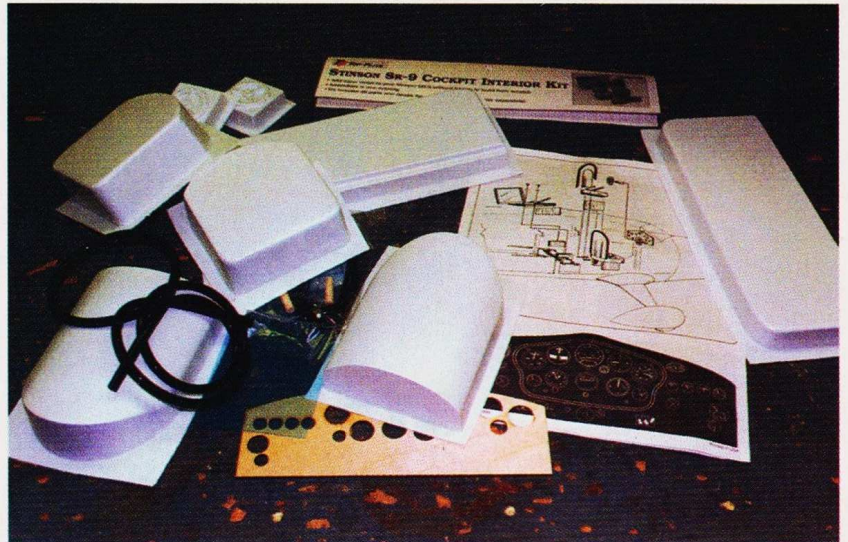


**Authentic emblems and graphics** are included with the Top Flite *Reliant* kit to reproduce the models as it is shown on the box art.

# Top Flite Reliant



The cockpit door is really required (at left) if you're going to install the optional cockpit interior (below). You have to do a fair amount of work through the door while installing the cockpit parts, made up of mostly balsa and ABS plastic parts.



quence. One nice thing Top Flite does is print the full set of plans in reduced size on three pages of the instruction manual for quick reference. The Stinson is so big that the full size plan sheets have to be joined. A work bench of six feet or more is needed to build this plane. My work bench is 7

feet by 4 feet and worked out well. strips. I hinged the elevator and rudder with Robart hinge pins. The wings are built next from balsa ribs and hardwood spars.

Some of the ribs are made up of four or five pieces and reinforced with plywood. Each wing panel is put together on the plan using no glue. All the ribs, all the spars, the leading and trailing edges, the ply wing joiner box are all pinned and weighted down dry. When everything is in perfect alignment it is then glued. The wing is then

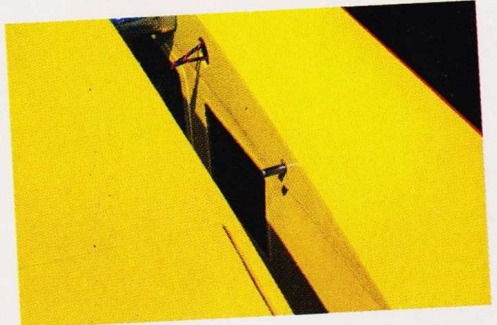
wheel pants, landing gear and wing strut fairings. There is also a very good hardware package and some vinyl decal sheets.

The next thing I did was read through the instruction manual a few times to familiarize myself with the building se-

Before building can start, you must remove all the die-cut parts from their sheets. Before removing them, use the patterns on page 8 and 9 of the instruction manual to identify the parts, and mark all of them with a ball point pen. Separate the parts into groups such as stab, fin, wing, and fuselage then store in plastic bags till needed. The die-cutting is very good and there are some laser-cut plywood parts that are perfect.

The tail group is built first to get you used to this type of construction. Top Flite uses many pieces to build all of the Stinson's structures. The stab and fin ribs have built-in jig tabs to insure a straight structure. The elevator and rudder are 1/8-inch sheet balsa with lightening holes. The trailing edges of the elevator and rudder are laminated from balsa

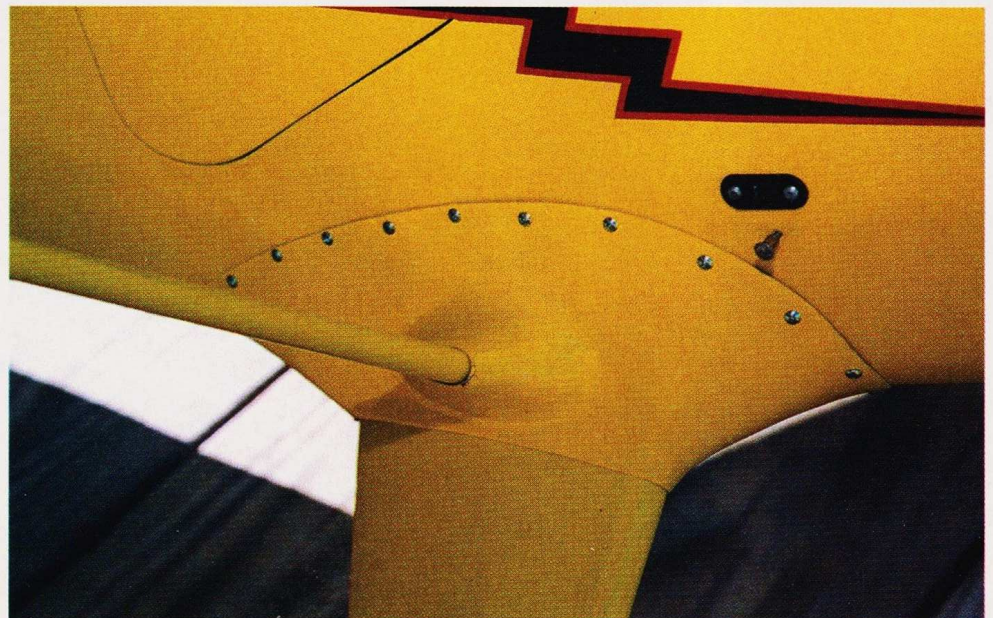
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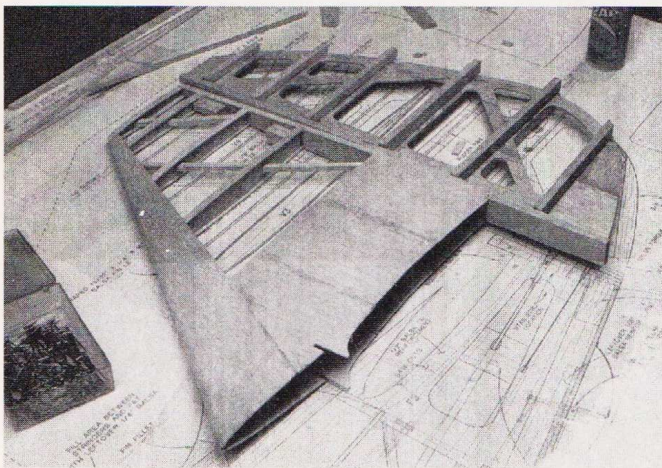
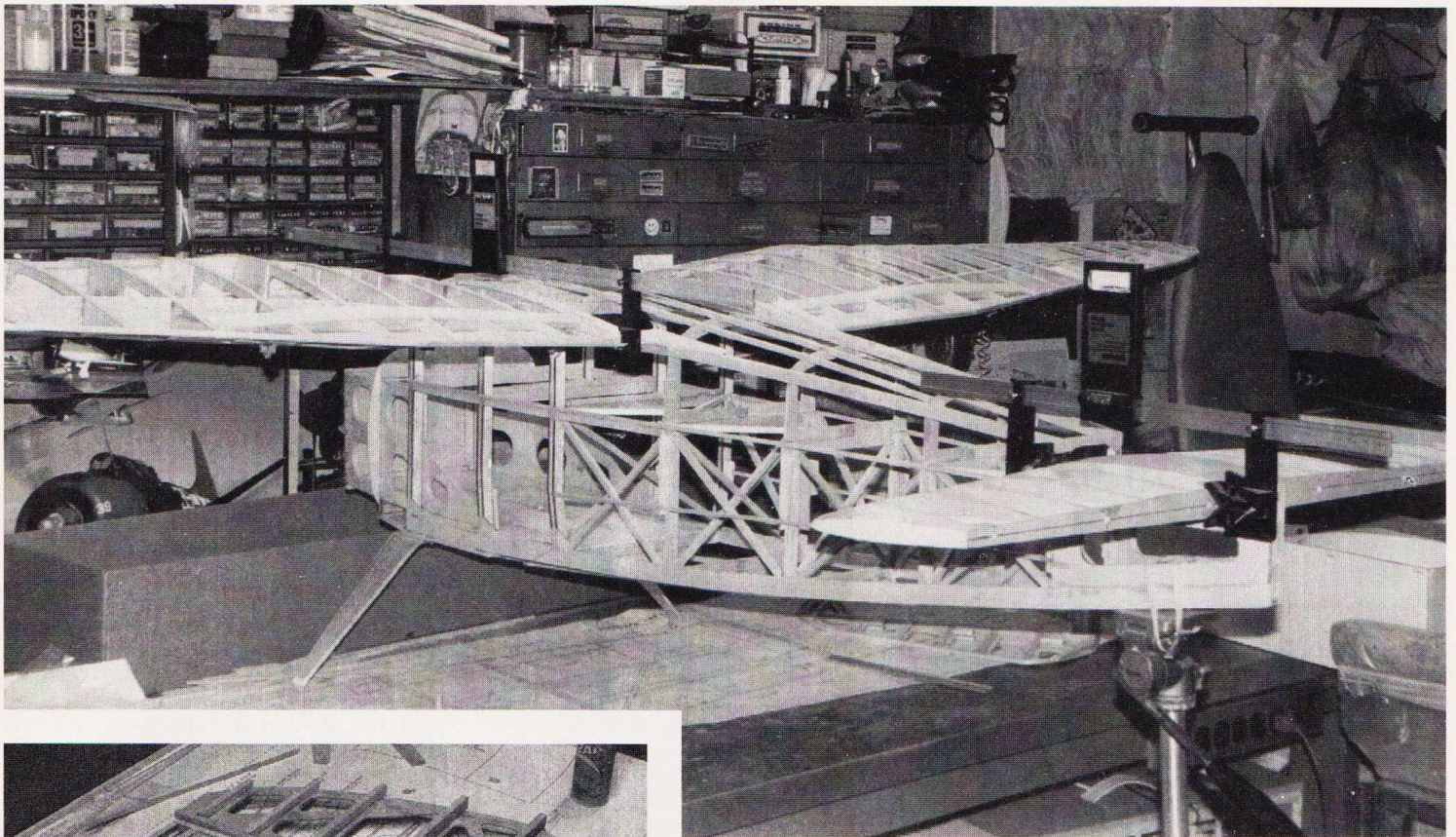


This view of the wing root shows the metal anti-rotation pin near the trailing edge, the servo cable carry-through hole, and a slight bit of the wing's aluminum tube spar. Retention bolts are forward of the tube.



John added lots of detail to the plane like the Stits Lite fabric covering that shows in the tail (above). The stabilizer struts have ABS ends that are filled (below) with auto body filler and sanded flat. The gear fairings' scale appearance was really enhanced with these button head screws (at right).





Two Robart incidence meters are put to good use (above) when fitting and checking the stabilizer incidence. Note how John used a camera tripod to adjust the correct reading for the wing incidence first. The tail structures are built first, and use quite a few parts to give you a light, strong framework (at left).

Futaba S9202 servos for the ailerons, and two Futaba S3003 servos for the flaps.

The bottom half of the fuselage is built upside down on the plan. First, all the formers must be made up from many small

pieces. The longerons are pinned down on the plan and the formers are added with 1/4-inch square balsa bracing to keep it in alignment. Some of the braces will be removed later. With the bottom of the fuselage done,

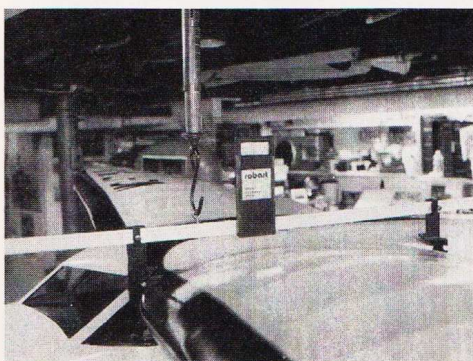
the top formers are added and then the wing mounting tube ply box is added above the cockpit. At this point I mounted the wings checking the incidence with a Robart incidence meter. With that done I mounted the stabilizer and the fin, checking alignment and the proper incidence with the meter.

The 1/4-inch aluminum landing gear legs are covered with 1/64-inch plywood over lite ply shaped ribs; this gives a pleasing airfoil shape. The top of the legs are covered with the ABS fairings. The ABS wheel pants are then added with 5-inch Sullivan Skylite

sheeted from the leading edge back to the first spar. The rest of the wing is open with cap strips on the ribs and laminated balsa strips at the trailing edge.

The ailerons and flaps are built onto the trailing edge of each wing panel to ensure the required wash-out. I highly recommend building in the flaps. The wing is then removed and the bottom is sheeted and cap striped. Then you can do it all over again on the other wing panel.

With the wings completed I installed two



The Stinson hangs by a hook at the balance point. John installs a hard point at the c.g. to use this method in all his big planes. Final weight was 25 pounds, needing 6 ounces of lead in the tail.

## Top Flite Stinson Reliant at a glance

Type	R/C Scale - IMAA legal
Wing span	100.5 inches
Fuselage length	67.8 inches
Airfoil	semi-symmetrical
Wing area	1487 square inches
Weight as reviewed	25 pounds
Wing loading	38.8 ounces per square foot
Engine required	1.08-1.99 two-stroke 1.4-1.6 four-stroke 25-42cc gas engine
Radio requirements (ail, elev, thr, rud)	5 channel minimum 7 standard and giant scale servos

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