

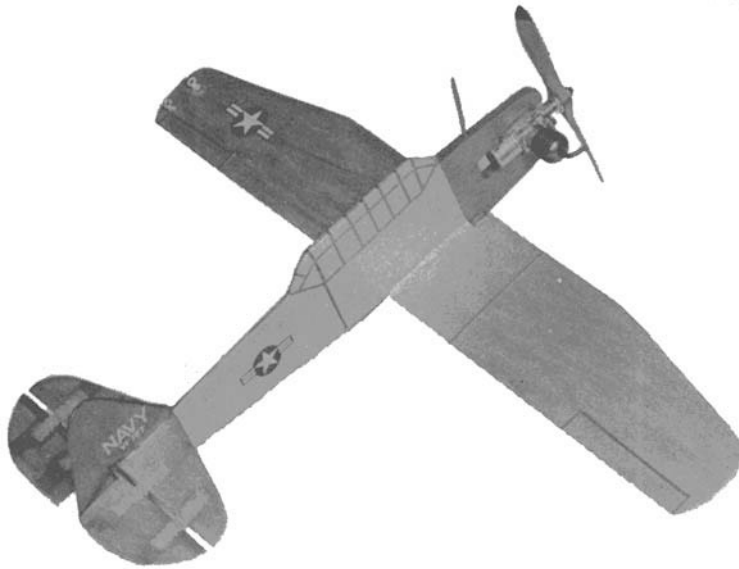
BUILD THE SNJ

by Albert E. Christen

Not all scale models are tough!

Try making this easy one.

You'll have hours of fun flying it!



• The North American SNJ was manufactured by the thousands and used by both the U.S. Army and Navy as a training plane during World War II. The Army version of the SNJ was called the AT-6—each of the armed forces has its own system of designation for similar aircraft.

Canadian airmen also trained in this plane—it was known as the Harvard, north of the border. Most of the Canadian Harvard's were painted bright yellow and decorated with the roundels of the Canadian Air Force.

We leave it to you to decide which version you'd like to model. Construction is alike for all—the final paint job and trim is the only variation.

It is not necessary to bother drawing full-size plans. Since construction is completely of sheet balsa wood, you can measure and mark the parts directly onto the wood with a ball-point pen, working directly from the half-size plans given.

FUSELAGE: Cut a 1/4" x 3" x 36" sheet of medium-hard balsa in half and join the two 18" lengths to form a 6" wide sheet. Measure and mark the fuselage outline onto the wood, checking to keep the wing and stabilizer parallel.

Use the fuselage as a template to mark the plywood nose-doubler outlines. Cut these out with a coping saw and sand them to identical shape while holding them together. Once completed, they can be cemented to the fuselage, one on each side.

At this point you can add the tail wheel. Make the tail-wheel strut from a piece of 1/16" piano wire and imbed it into the lower edge of the fuselage, as shown on the plan. The strut can be reinforced by covering the mounting with a small cloth patch. Drill the holes for the engine mount. Should you prefer to use an engine other than a McCoy .09 Diesel, used in our model, make provision for the fuel tank and tank-mounting before going ahead with further construction.

WING: Join two sheets of hard 1/8" x 2" x 36" balsa together to form a 4" wide sheet. Then, mark out the wing outline, starting at one end (Properly done, you will find that the remaining piece is slightly over 9" long). Cut out the wing outline from the balsa sheet.

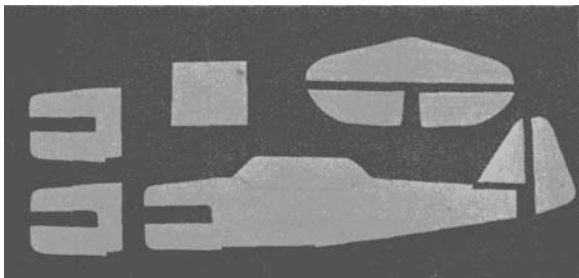
Sand the edges of the wing to a rounded shape. Don't bother trying for an airfoil shape—streamlining is not necessary on this model.

Cut the landing gear mount from 1/8" plywood and drill the holes indicated on the plan. Make a cut-out in the center of the wing for this mount to fit into. Check the top view for the location—5/8" back of the leading edge. Then, cement the plywood mount into the cut-out, making sure it fits exactly.

If you want to add dihedral to the wing, cut the wing apart at the exact center and cement the edges together so that each wingtip is 1" higher than the building board. This dihedral is not necessary—our model flew well with a flat wing.

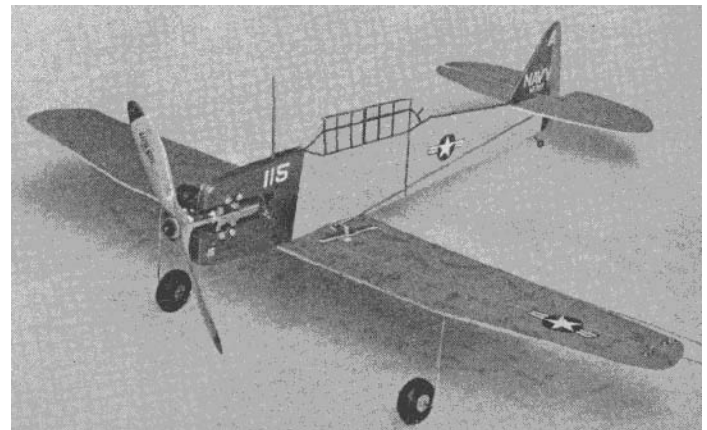
Bend the landing gear from 1/16" piano wire, following the landing-gear layout sketch shown on the plan. If you've added dihedral, you'll have to bend the landing gear in the middle so that it matches the wing angle. Sew the landing gear into position by passing heavy thread through the holes in the landing-gear mount. Use a liberal amount of cement to secure the wire.

STABILIZER: This should be marked out on, and cut from, the 9" piece of 1/8" x 4" balsa which remained after wing construction. Cut the stabilizer and elevators apart as shown on the (*Please turn to Page 34*)



It takes but a few sheet balsa and plywood parts to fabricate fuselage and tail. The wing is made from one piece of sheet.

Right: Powered by an .09 diesel engine, this control-line model is a red-hot performer. It's simple to operate and fly, too!



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plan. The two elevators are joined with a piece of 1/8" dowel hardwood. Sand the edges to rounded shapes and join the stabilizer and elevator assembly together with cloth hinges. Take care to keep the control-hinging free and smooth. Add the elevator horn to complete the assembly.

RUDDER: Make a 4" wide sheet of 1/8" balsa by joining two 2" wide sheets edge to edge. Mark the outline onto the wood and cut the rudder out with a model knife. Sand the edges smooth, using fine sandpaper.

ASSEMBLY: Cement the stabilizer in position, checking to keep the mounting at right angles to the fuselage. Secure the stabilizer with pins, then mount the rudder. This should be offset slightly so that the model will pull toward the outside of the circle.

Cement the wing in position. Use a small triangle to check the mounting if you are using a flat wing. Drive pins up through the bottom of the wing to strengthen the joint. If you're using a dihedral wing, make a small template of the dihedral angle and check both sides.

Mount a 2" bellcrank to the landing gear mount, through the hole provided. Attach and secure the 1/32" piano-wire lead-outs, using solder to bond the loop ends. Insert the 1/16" piano-wire push-rod, and check the control for smooth operation. Note that the lead-outs pass through two small eyelets (solder lugs can also be used) at the wing tip. Sew these guides to the wing and use a liberal amount of cement to secure them firmly in place.

Make the hardwood antenna mast from a short length of 1/8" dowel. Drill a small hole forward of the cabin and cement it in place.

FINISHING: Apply two coats of sanding sealer to the entire model and sand between each coat. Paint the model with the desired colors. The original SNJ model was painted silver, with a red nose and rudder. Details can be painted on with black dope, or you can use narrow strips of black tape.

If you plan on using a glow engine, fuel-proof the model completely before installing the engine and antenna thread. Note that the insignia decals are added before fuel-proofing.

As a precaution against damaging the decals, do not brush over them after once applying fuel-proofer. Most decals tend to soften and will smear if the fuel-proofer is brushed back and forth. Brush once and wait for the fuel-proofer to dry before brushing again.

Solder the wheels onto the struts and add a drop of oil to each axle to keep them rolling smoothly. Wipe all traces of soldering flux from the wire to prevent corrosion.

FLYING: Use lines which are 25 to 35 feet long. These will be fine when flying over smooth surfaces, such as parking lots. Over rough terrain, or on windy days, you might prefer to shorten these lines to 20 or 30 feet. Heavy fishing line makes fine lines for models of this type. Pick a line with at least a 25 lb. test—linen or nylon lines will give you the best service. You should find your SNJ easy to handle and a source of real flying fun!

BILL OF MATERIALS (Balsa unless otherwise noted)

3—1/8" x 2" x 34"	Wing; stab; rudder; elevators
1—1/4" x 3" x 34"	Fuselage
1—1/8" x 10" x 10"	(plywood) Fuselage doubter, landing gear mount

1/8" hardwood dowel; 1/16" piano wire; 1/32" piano wire; fabric hinges; elevator horn; ballcrank; two 1-1/2" dia. wheels; one 5/8" dia. wheel; four 4-40 nuts and bolts; one 3-56 nut and bolt; one 2-56 nut and bolt; black tape; thread; eyelets; washers, solder; cement; sanding sealer; colored dopes; McCoy .09 Diesel or similar engine; propeller to suit; flying lines and control handle.