

# Curtiss SEAHAWK

By PAUL PLECAN

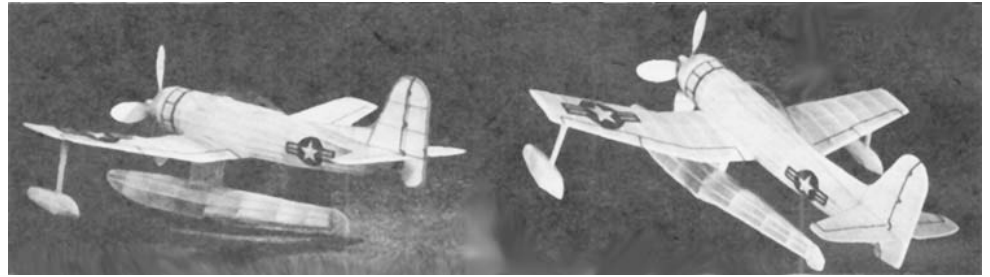
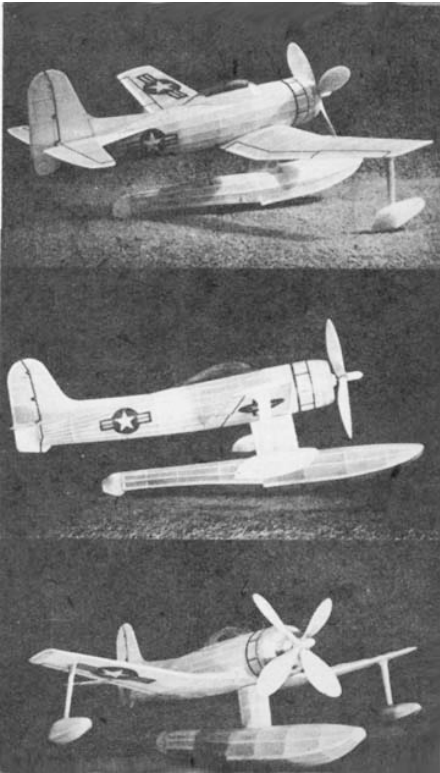
## Navy's Fast Scout Plane Can Be Powered by Rubber or CO<sub>2</sub> Engines

**S**TANDARD scout for the U. S. Navy, the Curtiss SC-2 Seahawk makes an unusual flying model. Our model of the Seahawk retains the strength of the prototype, which is stressed for catapult operation from battleships and cruisers. Built to spot gunfire, scout for enemy fleet units, and for search-rescue work, the Seahawk represents a recent idea—that of building a high-powered fast scout that wouldn't be a "sitting duck" for enemy fighters.

Powered by the light Cyclone "9" engine of 1,200 horsepower, this latest Hawk exceeds 300 miles per hour quite easily, and is one of the most versatile planes of the U. S. Navy. Change-over to standard wheel landing gear within 6 hours enables the Seahawk to perform shore-based duties, and folding wings enable it to be stored compactly aboard ship.

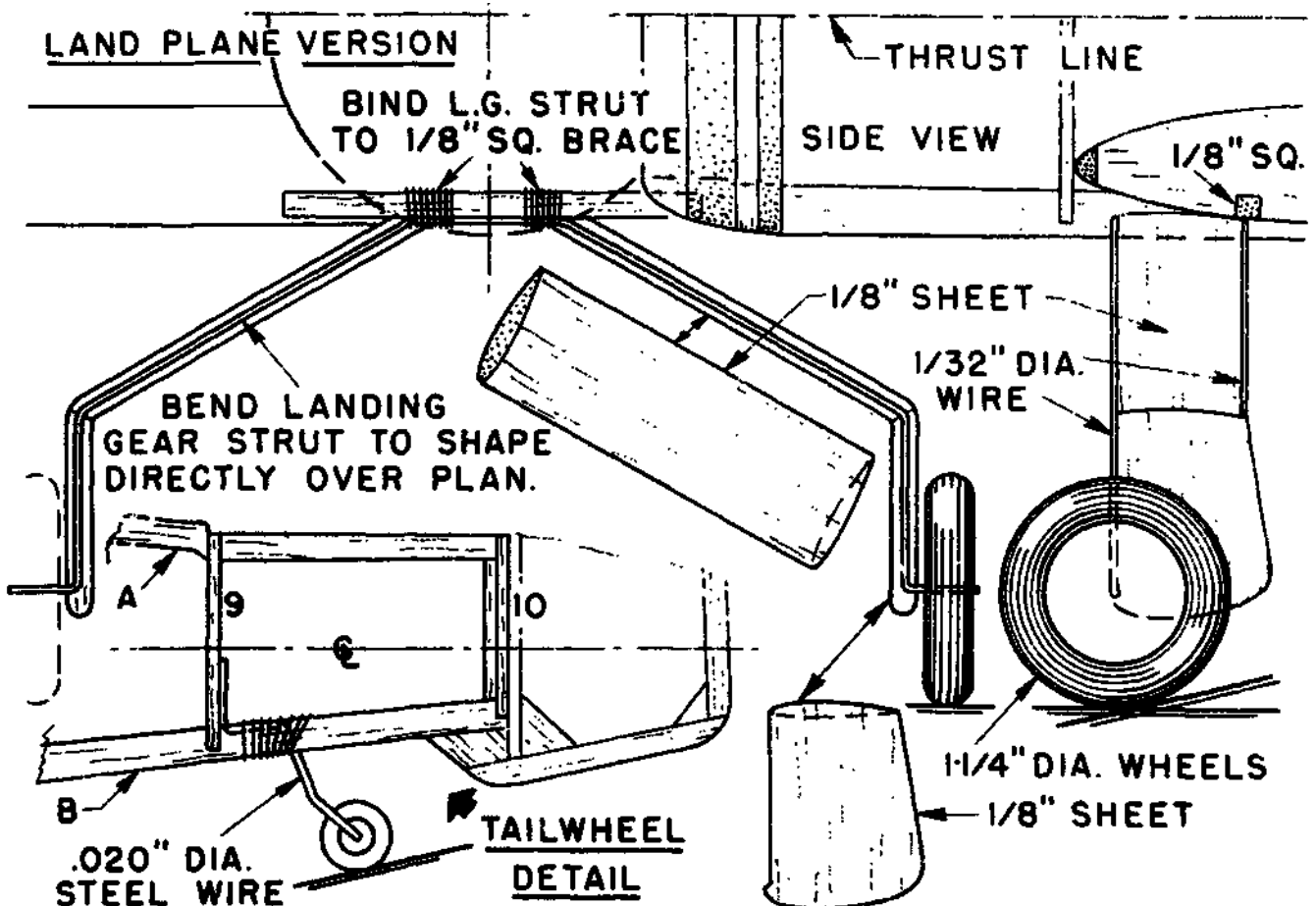
Built to a scale of 1/2" to 1', our model permits use of Campus or Buzz CO<sub>2</sub> engines, or rubber power. However, neither of these engines will permit a take-off from water, since no initial burst of power is available to break the surface tension of the water. So remember, if the seaplane version is your choice, stick to rubber power. The removable motor tube will enable you to change over from one form of power to the other within a few seconds

**Full Size Plans For the Seahawk Are on Center Plan Sheet**



The plans are full size, so if you have a few sheets of 1/16" stock and some 1/16" sq. strips, we can start now. If you want to preserve the plans, use a sheet of light tracing paper over them. (The fuselage is built utilizing the "half-shell" idea, so it will stick to the surface worked on.)

The fuselage keel pieces A and B are cut out first, as are formers 3 to 10. Use medium 1/16" balsa sheet for all parts unless otherwise specified. The keel (Continued on page 85)



## CURTISS SEAHAWK *(Continued from page 43)*

pieces are pinned to the side view plan and the formers cemented in place. Cement one 1/16"-sq. stringer in place (along the horizontal center line) and allow the cement ample time to dry. The "left half of the fuselage is then removed from the work bench and the remaining half-formers added. The 1/16"-sq. side stringer is now added to the right side of the fuselage, care being exercised to see that line-up remains undistorted. The remaining stringers are added now, one on each side, so the fuselage won't tend to warp to one side.

The front end, or cowling, is laminated from cross-grained discs of 1/4" balsa sheet (formers 1 & 2) and sanded to shape roughly before attaching to fuselage. The motor tube is merely a box affair that encloses the rubber motor or CO<sub>2</sub> tank. Use 1/16" sheet, making the tube 5/8" square and 11" long. (We make it longer than needed and trim the rear end until the assembled model balances properly.) In the CO<sub>2</sub> versions, mount the engine on a bulkhead as shown and place the tank as far back in the motor tube as you can to get the model to balance just forward of the spar.

The main float is no problem, being built in exactly the same manner. Remember to use fairly hard 1/16" sheet for chine stringers F and G, as the added doping of the float for waterproofing will tighten the tissue covering, tending to pull in all stringers between formers. Remember to make the chine stringers "oversize" in length, as shown by the dotted line on the plans. The float pylon, consisting

of a vertical brace (#28, medium hard balsa), three formers. (#27), and soft 1/4" balsa fairing pieces—fore, and aft, is assembled completely and covered, then fitted to float and wing bottom later.

The wing is started by assembling the spar first. One medium hard center piece (#30) and two tip pieces (#31) are cemented together. Don't forget to mark the rib locations at this point. Use a pen, as even a soft lead pencil will crush the balsa. The ribs are slipped in place (put wing frame over plan to check spacing) and cemented. The 1/8" x 1/4" leading edge and 3/32" x 1/4" trailing edge are the next items. After the cement is dry, add the soft balsa tip and sandpaper to a round shape. Add 1/16" sheet balsa covering to the center section and cement the 1/8"-sq. float braces in place, and you are finished with the wing, except for covering. If the wing is slightly warped, that's O.K.—the warp can be removed by "steaming" the covered wing and holding it until the covering is taut.

The tail surfaces are the simplest part of all—merely pin the parts to the work bench as shown on the plan and allow the cement to dry thoroughly before removing. Tail extensions #29 and #32 are cut from soft 1/32" or 1/20" sheet—cement in place after covering is completed. Cover the model with any light grade of tissue. Colored dope should not be used, as the weight has to be kept to a minimum for best flying qualities.

The tip floats can be installed before or after covering. By installing them prior to covering,

a stronger joint can be had, but covering will be a harder job.

Note that the tip floats are made by cutting out a "keel" outline of 1/16" sheet (#33), Soft balsa blocks, 1/2" x 1" x 3-1/2", are spot-cemented to both sides of this "keel" and carved to shape. After sanding, hollow them out to approximately 1/16" wall thickness. Follow assembly with 3 coats of dope. A drop or two of castor oil in the dope used on the tissue covering will plasticize it, keeping it from shrinking the covering too tight.

Insignia can be a decal, or can be cut out from tissue or doped in place. The celluloid canopy can be formed in the usual way, but a ready-made part will save all the work entailed. The author used the canopy from a Comet "Whizzer" kit. Be sure to use a well-balanced prop whether CO<sub>2</sub> or rubber is used, as vibration from a wobbly prop will cause a loss of power that may prevent the rise-off-water flights we all enjoy seeing.

Control outlines are added by doping thin tissue strips to the tissue covering as shown on the plans. The model should balance at the spar location or slightly forward of it. If the wing and tail surfaces have been mounted as shown on the plans, the model should glide correctly on the first try. Once the glide is satisfactory, use the usual thrust offsets to produce the proper flight path. As a rubber-powered model, 3 loops of 1/8" flat T-56 brown rubber should provide the necessary pep to get this Hawk into the blue.