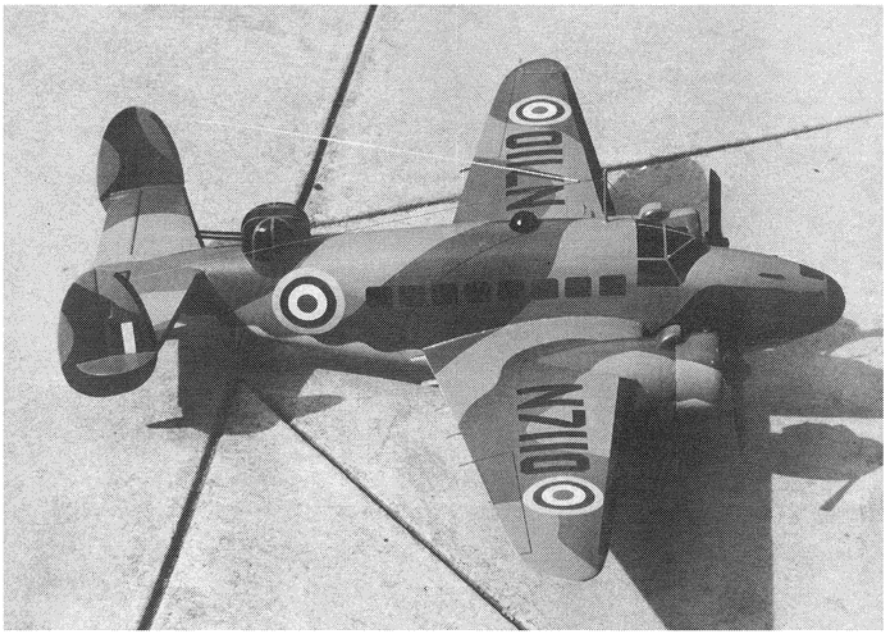
Carstens Flying Plans Favorites:

CF-71
Lockheed Hudson

PHOTOGRAPHY: PAUL PALANEK



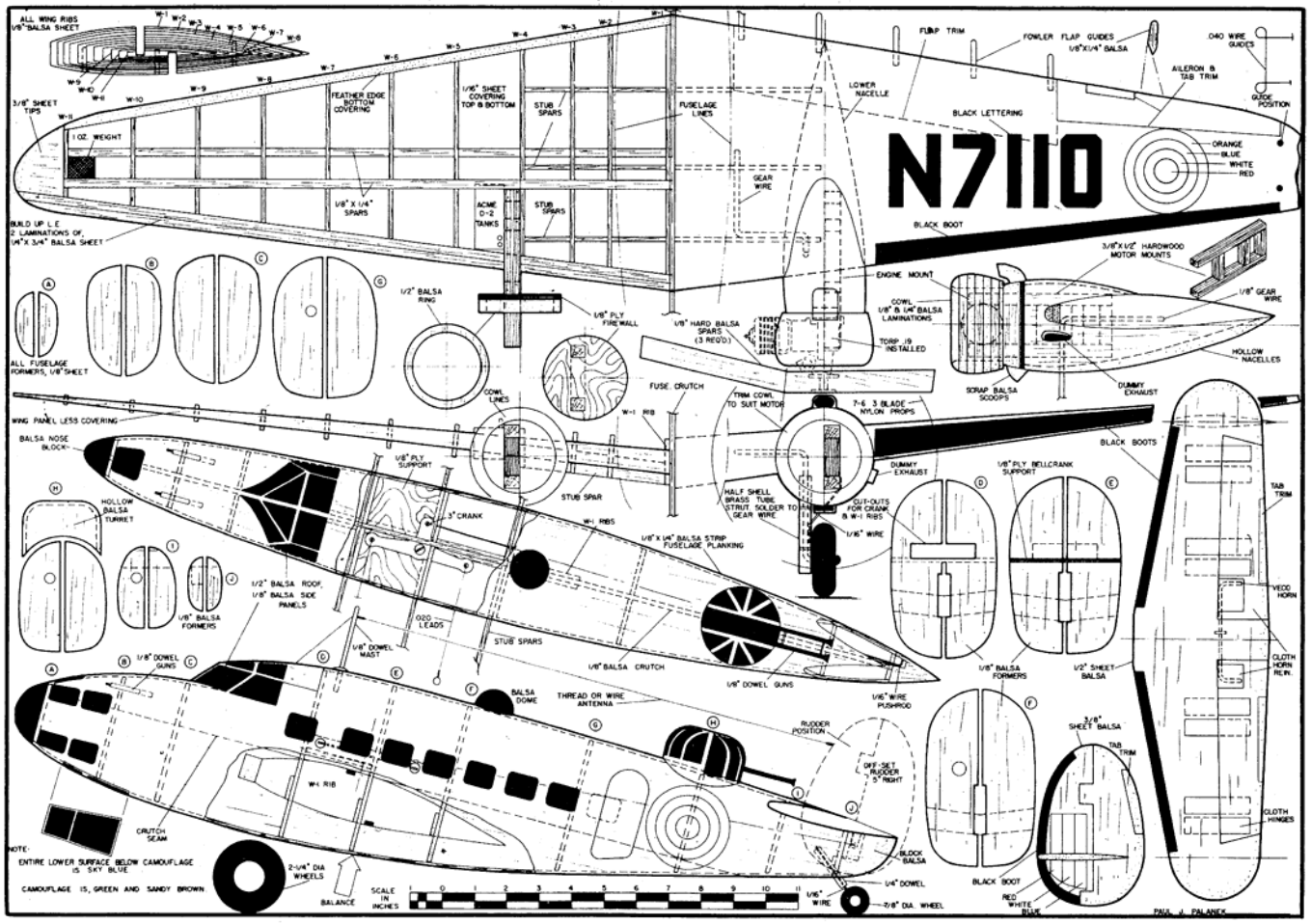
This Controline Scale model of the Lockheed Hudson first appeared in the April-May, 1962 issue of FLYING MODELS. It was designed to be flown with two .19 size engines and had a wingspan of 40". The designer, Paul Palanek, was well known for his fine scale work, and many of his designs appeared in FLYING MODELS.

Modeled after the light bombers sent overseas in large numbers during World War II, Paul's ship featured a camouflage finish and many details that further enhanced the scale appeal of the Hudson.

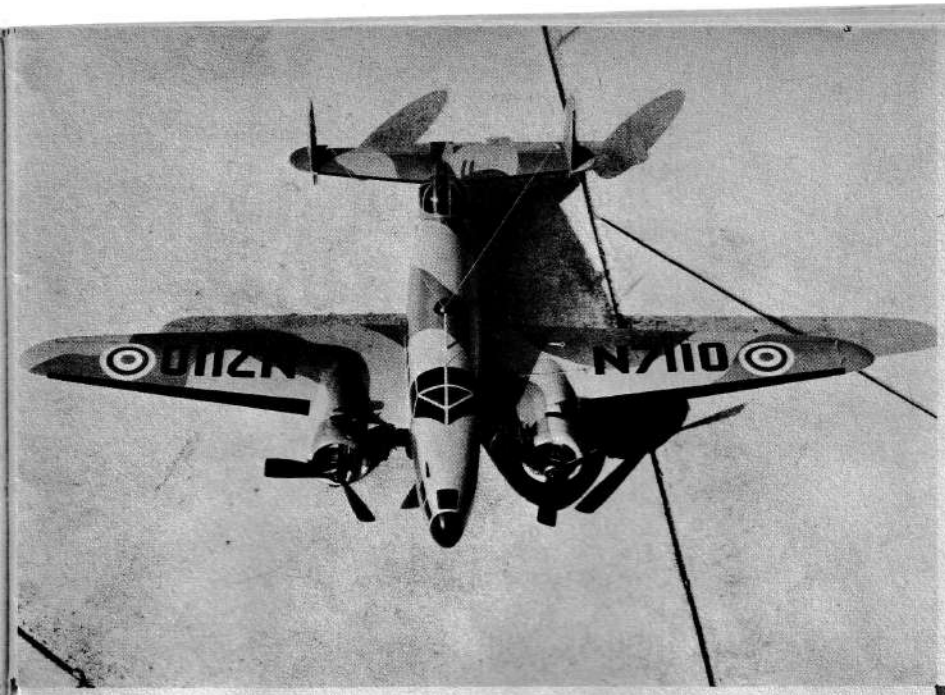
The Hudson found favor with the British admiralty when it set the record for enemy subs sunk. The plane was known in this country as the Lockheed "Loadstar". Many of these aircraft are still in use today as executive transports and with small "Feeder" airlines.

Plans for Paul's model are available from Carstens Flying Plans service. Order plan **CF-71,** $4.00.

Although this model was designed for use as a Controline Scale ship, modern Radio Control equipment can be adapted to produce a very distinctive Stand-Off Scale plane. In fact, many of the Controline Scale planes listed in the 1981 Carstens Flying Plans Directory (included in the March, 1981 issue of FLYING MODELS) are suitable for conversion to R/C. Copies of the March issue containing the Plan Directory are available from Carstens Publications for $1.50 each.



FULL SIZE PLAN AVAILABLE THROUGH CARSTENS FLYING PLANS ORDER PLAN CF-71



LOCKHEED "HUDSON"

by Paul Palanek

Full Size "Timely" Plan Available!

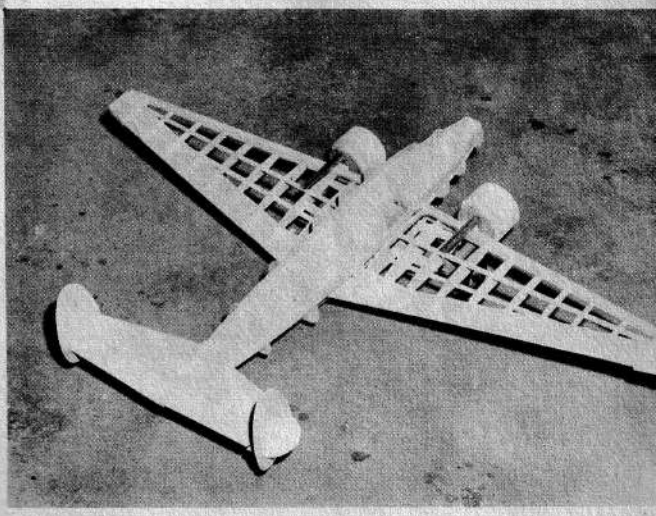
Colorful rugged replica of WWII Sub Killer . . .

.074 to .19 mills, 2 lbs., 11 oz. with .19 power.

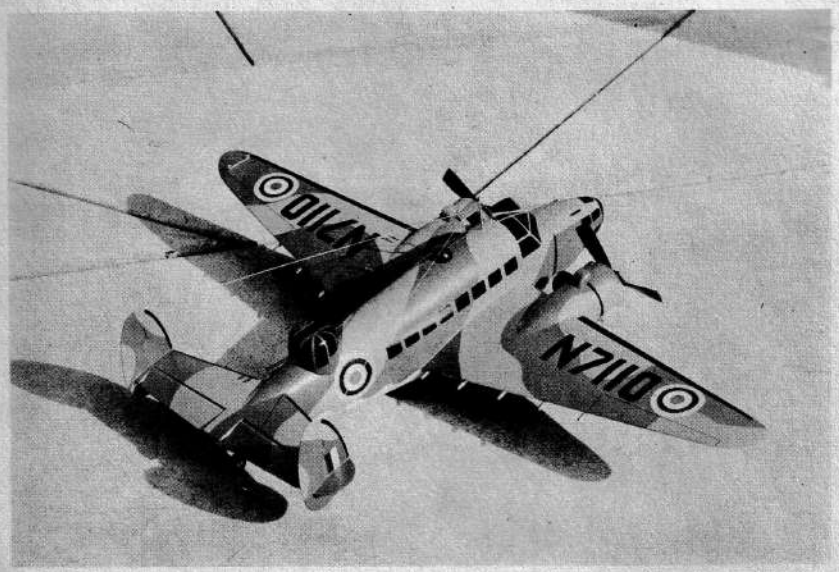
40" Wingspan

Three-bladed nylon props drag it around on 75' lines.

. . . Controline Scale Twin Engine



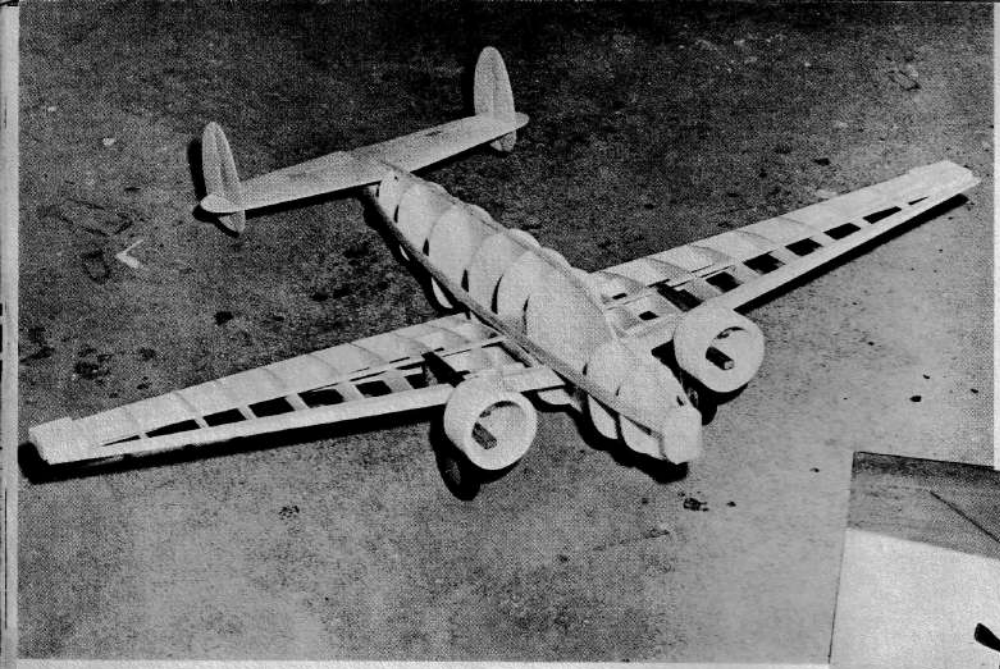
Sheet side fuselage profile with wing root attached. Design is not critical on wood density.



Above and top left: Finished Hudson is truly colorful, sturdy twin. Thick section, bulky fuselage add to the strength and permit lightweight structural techniques. Sandy-brown or green olive drab camouflage motif, sky-blue on under-surfaces. Large span makes the ship suitable for wide variety of engines, as long as balance is adjusted. Plans are ¼ scale. Right center: ¾ rear frame shot depicts simplicity of the structure. Sheet tail surfaces, fuselage sheet keel, ready to plank. Hardwood motor nacelle mounts are firmly entrenched in the wing structure, absorb engine vibration well. Cowls are cross-laminated.

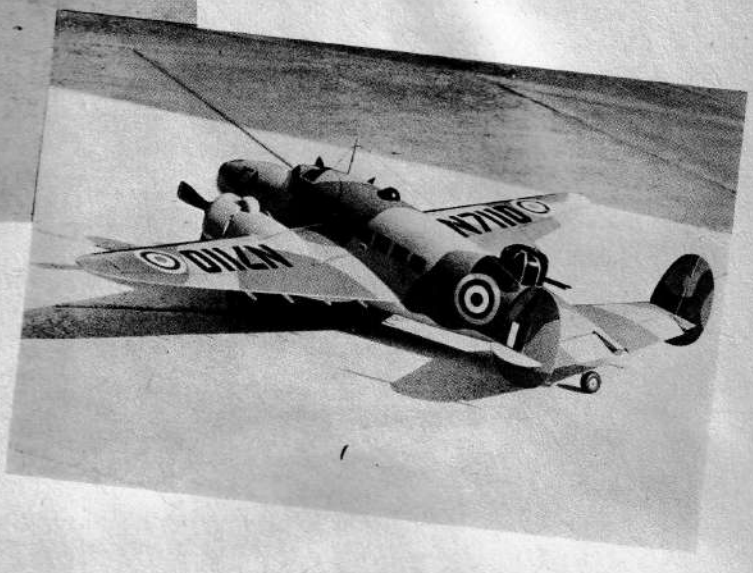
▶ Lockheed Hudson Bombers sent overseas in large numbers in World War II won praise as fighter bombers in the British Isles. This U.S. export proved a most popular emigrant during the early days of the war. The English most certainly have found a soft spot in their hearts for this great airplane. As a sub killer it was second to none. To sight sub sink same, you must first find it. This operation takes a fairly large bomber with a long range, as oceans are big and targets small.

After the prey is sighted, you push into a dive, and quickly drop your bombs, for "U" boats crash dive in 20 seconds. Ordinarily you just can't do much of a power dive with a medium bomber — not and stay in one piece. However, you could in a "Hudson." For this reason, the official record for sub-smashing is held by the RAF Coastal Command. It destroyed more subs than any other warplane, and has been used by the RAF longer than any American Bomber. The "Hudson" was all metal, armed with a variety of rapid-firing guns, equipped with mammoth bomb bays and manned by a crew of four. A turret of the electrical type was mount-



LOCKHEED "HUDSON"

. . . continued . . .



A sheet trailing edge is employed, light, fast, and warp resistant. Planking covers fuselage compound curves. It takes time to fit each strip, but it is not difficult. Sanding quickly smooths all edges. At right: Ready to go. Twin scale types add a lot of fun to flying.

Don't just stare at it. Clear the workbench and get-to-buildin'.

ed aft. At the time, she was the World's fastest bomber. Also, this 1939 Hudson, military version of the Lockheed 14 Civil transport, broke all previous globe circling records (3 days, 19 hours.)

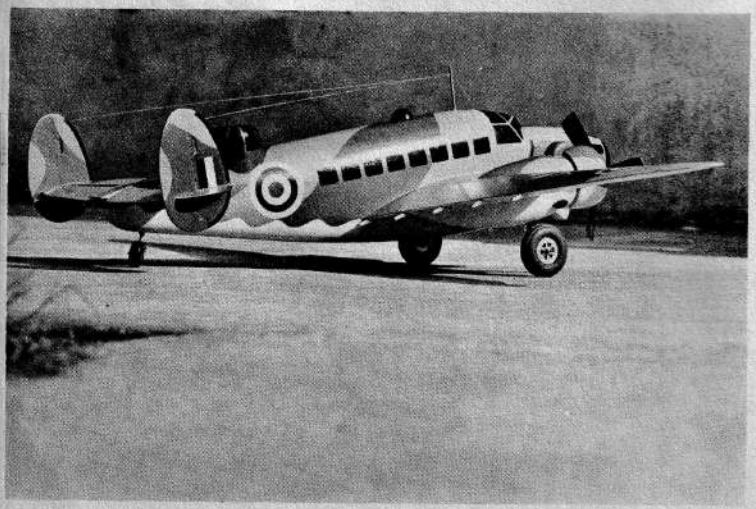
Our model version of this airplane carries a pair of K&B .19's, spinning three blade nylon props. It spans a mite more than 40" with an all-up weight of 2 lbs. 11 oz., which is quite light. Markings are of course British, with a camouflage motif. The colors used are, sandy brown, green or olive-drab and sky blue under-surfaces. All construction has been kept simple and conventional, and nothing is hairy. At the same time we endeavored to keep the weight down and came up with a sound structure.

Fuselage is built around an 1/8" balsa crutch. All balsa formers are fastened to this member, including wing ribs W-I. The crutch is built up from two sheets with the seam as indicated in the drawings. Be certain all cut-outs are placed in the crutch, spar, leading edge, bellcrank and stab, etc. In positioning the formers, maintain a square condition to the fuselage centerline. Secure these formers with a few strips of 1/8" x 1/4" planking. Allow ample room for the wing. Fasten the plywood bellcrank support, and when dry, secure the crank in place. Install the pushrod in the fuselage with about 2" extending aft, to be trimmed later.

Plank as much of the fuselage as

(*Continued on Page 26*)

Below: Tailwheel swivels, main gear has wide tread, large wheels for ideal ground-handling characteristics. Trim is colorful, easily applied, window areas are painted. Planking fuselage is easy task.



Lines are distinctive and should conjure up wartime memories. The "Hudson" set the record for subs sunk. Nacelles are close-inboard, limiting prop size, but enhancing one-engine-out power performance.

HUDSON

(*Continued from Page* 22)

possible without interfering with the wing installation. Allow the fuselage thus far completed to dry.

The wing is lightly trussed since it is balsa skin covered. Laminate, ¼" x ¾" sheet or strip balsa for the leading edge. All ribs are ⅛" balsa. Build the wings over the plans using the ⅛" x ¼" spars and leading edge as joining members. When dry, remove from plans. Be certain that the first three ribs, W-1 to W-3 are slotted to receive the three hard balsa stud spars. Slip these stub spars into the slots cut into the crutch, check for alignment, cement and allow to dry.

Prior to fastening the wing panels to the fuselage, motor mount, fuel tank and ply firewall should be installed. The mounts are built-up from ⅜" x ½" hardwood. You will note each mount is fastened over the wing leading edge, then to W-4 rib and the leading edge. The firewall is ⅛" plywood with two square holes cut to slip over the mounts. A balsa ring is then fastened to the firewall. After this addition has dried, secure the two D-2 Acme fuel tanks. The tanks fit snug between the ribs and motor mounts. Having satisfactorily completed the above, fasten

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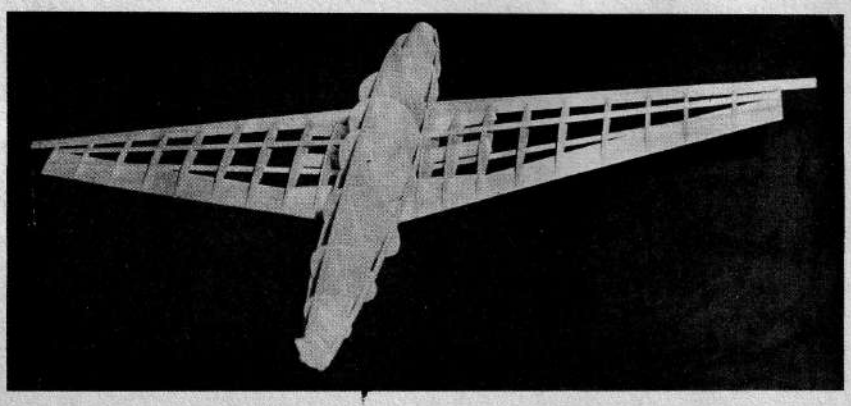

AURORA

(*Continued from Page* 10)

using a sheet of 1/32" x 4" x 36" (which is why the stab spans 18") with a density of 4 lb. per cubic foot.

Body and boom blanks are given three or four coats of clear dope on the inside side, and allowed to dry well before soaking in water and wrapping on their forms. They should be allowed to dry thoroughly before removal, after which the seams are cemented.

1¼" O.D. x 1/16" wall aluminum tube was used as the body form and also provided the material for the body end formers. But since this diameter is a trifle large, a diagonal cut was made with a hacksaw and the diameter was reduced slightly before they were glued in with epoxy. These may also be made of sheet aluminum bent around a proper diameter pipe or dowel. Be certain to remove all burrs and sharp corners so they won't cut your rubber.

The motor tube is covered with two layers of 2" wide silk spiral wrapped around and well doped. This, together with the aluminum end formers, makes the body impervious to a broken motor. Both originals have taken this impact without damage when the man behind the crank got

HUDSON

(*Continued from Page* 26)

each wing panel to the fuselage. Secure this addition with ample cement and allow to dry thoroughly. Check the wings for proper dihedral angle and alignment.

At this point, the tail surfaces can be brought to completion, which will allow ample time for the fuselage and wing joint to dry. The stabilizer and elevator are fashioned from ½" sheet tapering to ⅛" at the tips, with a streamlined cross-section. A large Veco horn joins the elevator halves. Reinforce with a strip of silk. Do not fasten the elevator to the stab as yet, this will be done after the tail has been attached to the fuselage. Both rudders are cut from ⅜" sheet balsa to fit the stab at the points indicated. Each is made in two pieces. When cementing the fin and rudder to the stab, allow at least four degrees offset to assist in keeping the lines taut. Apply two coats of clear dope to the completed tail surfaces. Allow ample drying time for each coat. When satisfied, cement the stab assembly to the fuselage. Check for proper alignment, after which the elevator, pushrod and cloth hinges are added.

Returning once again to the wing, fasten the gear which is bent from ⅛" music wire. Bend as shown and slip into the ribs and flush to the leading edge. Reinforce the gear with plywood and adequate cement. Apply at least three coats of cement. From here on out, we close up the fuselage with ¼" x ¼" planking and the wing with ¼" sheet balsa. Sheet balsa is used for wing tips and scrap block balsa for nose and tail of the fuselage. The .020 lead-outs should be fastened and the tail wheel assembly placed prior to closing the body.

Allow sufficient drying time, then sand all surfaces with a medium grade. Remove all rough spots and seams, after which two coats of clear dope are applied. Now is a good time to shape and hollow out the engine nacelles. The lower portions are slotted to fit the gear wire, and closed up after assembly. Cement the nacelles in place, cementing to the wing contour and firewalls. Fill all openings with balsawood filler, blend into a neat fairing.

Prior to applying the finish to all surfaces, mount the engine and check for alignment. Solder the brass fairing to the landing gear leg, install the wheels, and complete the cowls. To help strengthen the cowls, cross-laminations of ⅛" and ¼" sheet balsa are used. Shape to contour, fit to engines and firewalls. Next, remove cowls and engines, and set aside.

All surfaces should have two coats of clear dope and one of balsa sanding sealer. Each application should be sanded lightly. Next, cover the entire model with light grade silk or Silkspan. Apply a coat of sanding sealer, and when dry, add the Fowler flap guides and turret. From here on, use No. 280-300 grit paper for all sanding. Brush or spray two coats of Duco auto primer, sand smooth. Next, apply three coats of sky-blue to all bottom surfaces, and mask for green camouflage trim top side. After two coats of green, mask for sandy brown and apply two coats.

Allow the model to stay for at least 24 hours until thoroughly dry. Remove all masking tape and lightly scrape the excess paint between colors. There is no point in bringing the finish to a hiluster as the duller it is the better, since camouflage is intended to be an unobtrusive finish. If nitrate dopes are used, two coats of Comet fuel proofer must be applied after all paint and decal trim has been applied.

Mask and black paint such details as, windows, all glass, doors and deicing boots. Add all the decals and line trim. Place the dome and antenna mast, followed by the antenna wire. With all details added, install the engines and secure the cowls. On the left wing tip add the line guide. A pair of 7/4 nylon props do a most efficient job.

The model is light in weight and most flyable. The .19s are to be considered maximum power. We believe .074s will do an equally good job. Flying was done using .015 lines scribing a 75 foot circle. Check to see that all splices are secure, we're sure you wouldn't want to go free-flight. Good luck and have fun flying yours. ●