

"Pea-Shooter" Stunter

"That sure is a funny looking "Nobler," they said. Of course, who ever saw a "Nobler" with a 61" wing, fat tummy and a baby's potty for a cowling? It's sort of a P-26.

by Jack Sheeks

The design of this little Pursuit fighter began in September, 1931 and became the most famous fighter plane of that era. To quote Peter M. Bowers who researched this aircraft for Profile Magazines: "To be the vanguard of progress is a rare achievement; to be part of the rearguard a distinction. To be both first and last is something of a rarity." But this is the unusual claim of the diminutive Boeing "P-26," *Pea-Shooter*.

It was the first all metal American fighter to go into full production and our first production fighter plane in a monoplane configuration. It was also the last open cockpit, fixed undercarriage plane accepted by the Army for service. This is also Boeing's last production fighter plane which brought to an end fifteen years of being the leading manufacturer of fighter planes for both the Army and the Navy.

The real ship sported a 27' 11½" wing

span and a length of 23' 10". Its maximum speed was 234 mph.

What most people don't know about this ship is that it did go to war. Since its life span was between 1931 and 1940, Americans never fought in them. Eleven however were exported to China and fought as front line fighters against the Japanese and recorded many kills before lack of spare parts forced them out of service.

Until 1940, when the "Pea-Shooter" was replaced by the *P-36A* and the *P-35*, it was one of the world's most advanced fighters and held many military speed and altitude records.

As for modeling this little ship, I just about had to after seeing it at the Air Force

Museum in Dayton, Ohio. It presented a few problems as to size and weight, but you never know for sure until you try.

First we ordered a custom engine from Dan Shafer in Ohio, then the wing from Arnold Stott of Foam Flite in Mankato, Minnesota. Now we were ready to start. After changing the working drawings several times, the bones started to fall into place. I have trouble with these things cause I kaint spel or do addin. The more I fiddled, the bigger the ship got. You little guys may have to shop at a Navy store for a used anchor for your rear pockets. Us fat fellows sort of lean a little anyway. We tried to keep this beast a secret from the other balsa breathers around here so we could surprise them with that shadow of doubt at the first contest. But no, one balsa mangler found out and put NBC and CBS to shame. Then it was a continuous parade of ogles and knee-slappers, expounding on

Photos: Jack Sheeks



"how Fat Jack had slipped another cog and it looks as if Al Rabe has given him a complex with his fat cat." But when they said it was a funny looking "Nobler," that was the crowning comment. I was determined to make this beast from my imagination a winner. Besides who ever saw a "Nobler" with a 61" wing, a fat tummy and a baby's potty for a cowl? "

Anyhow, the construction continued and as it neared the end, the fellows began to get worried. It started to look good! But when the time to paint came around, the tubby bug hit me. That's the one where fear strikes at your heart and you wonder if it will be too heavy to perform when completed? That immediately goes into the "what if's." What if this won't work, what if that doesn't hold and so on. Ever have those before?

After the ship was ready to fly Indian summer collapsed in Indiana and things had to be put off, which made for more nerves and worry. Finally we got to tramp to the field. We were so excited that we tramped on the dog on the way out (and mud on the new carpet on the way in), the camera was forgotten and a cigarette burn appeared mysteriously in my new pants (knickers). You can see we were really prepared to go.

We found much to our surprise that the 60 ounces plus didn't hurt the flying and the ship could make it with a big dog on its back. Thus entered Snoopy to prove a point.

Even if having Snoopy (plus fleas) in the cockpit doesn't exactly prove much, it was necessary as he needed a faster ship to chase the Red Baron anyway. WW-I has been going badly lately.

Getting back to the flying aspects, it will surprise you if you decide to build it. It's very impressive in the air and looks quite realistic. If you wish there are many details that can be added and a slew of paint schemes that can be used. So on with and up with Semi-Scale Stunters. Build a "Pea-Shooter."

I'll finish this article after lunch, so please excuse me.

Construction

(Burp) I should never eat Tuna fish and chase it with Pepsi. Begin by either buying a wing from Foam Flite or cutting out rib patterns from $\frac{1}{8}$ " plywood, sandwiching 13 pieces (unlucky number) of $\frac{1}{16}$ " balsa between templates. Carve it all to shape. This is done for each wing half.

Lay the $\frac{3}{8}$ " sq. balsa stringer or spars on the plan and pin each rib into place, followed by the top spar. Next glue the $\frac{1}{8}$ " x $\frac{1}{4}$ " rear spar on the $\frac{1}{16}$ " x $1\frac{1}{2}$ " trailing edge, slipping it into position under the rear of the wing. Align and block it up so the trailing edge is straight. Glue all joints at this time. Cement the top of the trailing edge planking into position, then the leading edge. After both halves are built, install bellcrank and floor, complete with

leadouts. Plank the wing halves as shown with $\frac{1}{16}$ ", holding the wing together with it. Don't forget to install the $\frac{1}{4}$ " x $\frac{3}{8}$ " trailing edge.

Laminate the wing tips from $\frac{3}{8}$ " balsa and built in the adjustable leadouts. Cut the flaps and false flaps and sand to shape. Install them with Sig or DuBro hinges. Final shape and sand the wing and set it aside for the moment.

At this time, cut the stab, elevator and rudder from $\frac{3}{8}$ " soft balsa. Rib them with $\frac{1}{16}$ " balsa and sand to final shape. Hinge the elevators and install the 3" control horn. Set these aside also.

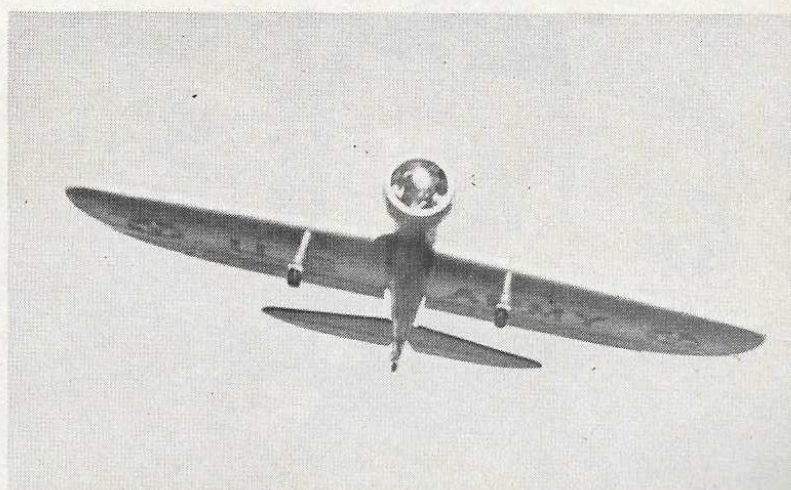
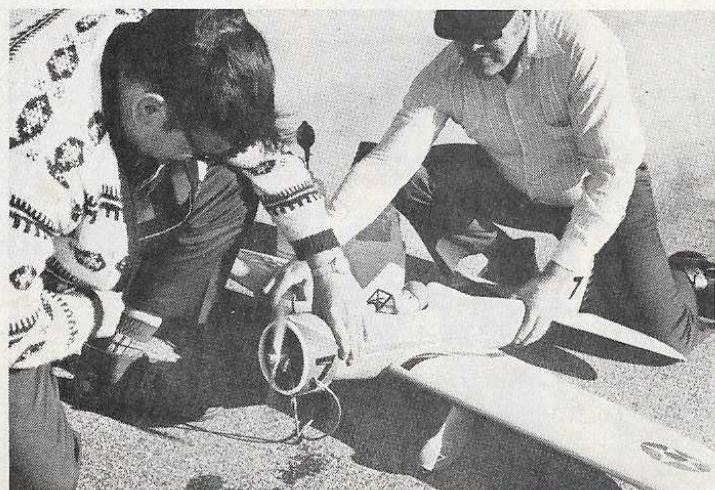
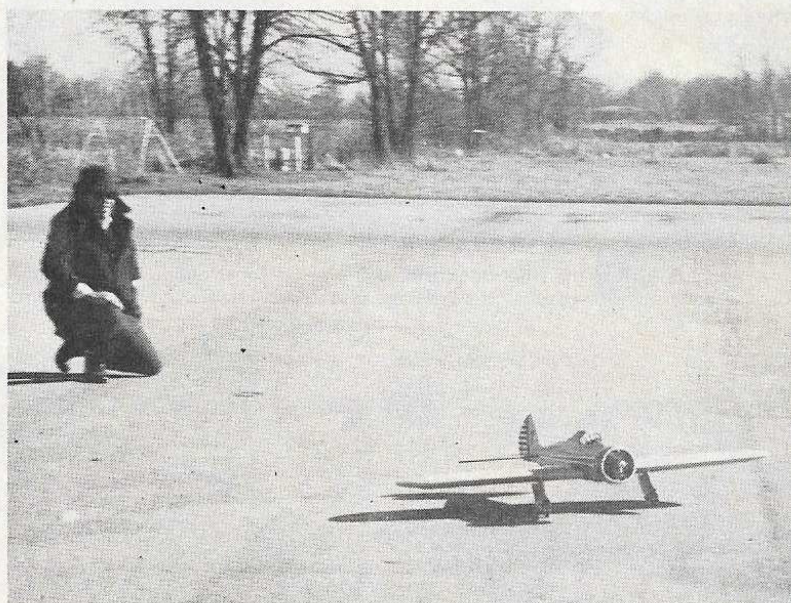
The fuselage starts with a small prayer and a bunch of balsa. Cut the body sides from $\frac{1}{4}$ " soft balsa and double it with $\frac{1}{32}$ " plywood. While this is drying, cut the $\frac{1}{4}$ " plywood nose former out and the rest of the formers from $\frac{1}{8}$ " balsa. Slip the two body sides into place and epoxy them to the nose former, pulling the rear of the sides together and glue to a piece of $\frac{1}{8}$ " sq.

Turn your attention to cutting the landing gear skirts and pants from $\frac{1}{4}$ " and $\frac{3}{8}$ " balsa. Tack glue them together and shape. Bend the $\frac{1}{8}$ " dia. landing gear wires and install them together with the wheels into the pants. Let these rest and begin cementing body formers into place, aligning by the plans as you go. Install the wing in the saddle and epoxy for strength. Do the same with the stab and align carefully.

Now glue the upper $\frac{3}{16}$ " x $\frac{1}{4}$ " stringers



Somewhat surrounded here by photos. A "P-26" in spirit, proportioned for Stunt. Photo at left displays the classic lines. An agile performer too. Camera at right catches the "Peashooter" boring along on takeoff and in full flight. Below: Our hero says things of encouragement to glow plug.



into place. Install the pushrod to the elevators, making sure it is free. Next position the lower stringers. Begin planking the fuselage in sections with $\frac{1}{16}$ " balsa, wetted so it will bend easily. This is done one half section at a time.

You may now start cutting the cowling rings from blocks. Remember that one is cut from $\frac{1}{8}$ " plywood in order to hold the cowl to the fuselage. Glue the rings together and let dry. Install the tail wheel on the plywood floor and glue into place. Cement the blocks into position at the rear of the body and sand to shape. Install the main landing gear and set the ship up on its wheels and shape the cowling and drill the mounting holes. Don't forget to mount the tank before all the stringers are in place as I did, venting it to the front along

the motor mounts that were supposed to be put in when the formers were. (I hope you like your glider.) $\frac{1}{8}$ " plywood is used to brace the motor mounts.

Now that all these good things have been done, you can cut the headrest from scrap $\frac{1}{2}$ " or two pieces of $\frac{1}{4}$ " balsa. Sand it to shape and install it. Install the cockpit floor before the planking is installed around the cockpit area.

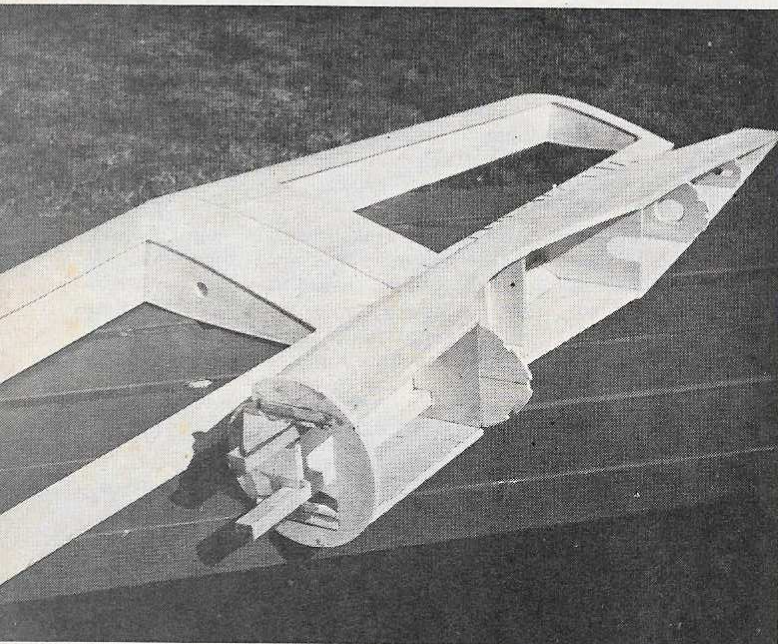
The rudder is the last thing to install. That's so you don't bust it while moving the ship all around. Chop the windshield frame from $\frac{1}{32}$ " plywood, cutting a seam where it bends back, making sure not to cut clear through. Glue the celluloid to the frame and install it after the paint job has been applied.

Speaking of paint jobs, we used red,

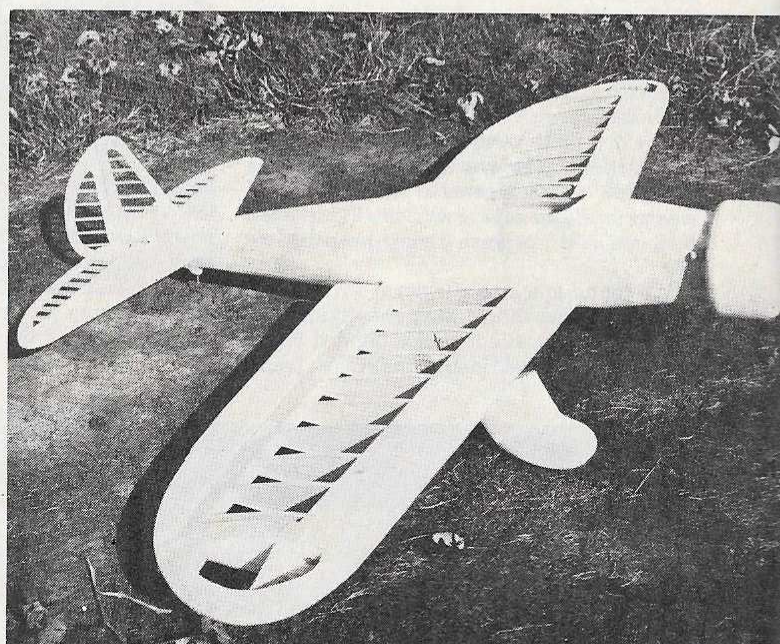
white, blue, yellow and black. They have many combinations of this, so be our guest. We covered the ship with SGM Silkspan, using Sig's Low Shrink Dope, Buty Flex colors and Aero Gloss in the cockpit. We love everybody. As for the decals, they were donated by Bernie Ash Creations, 2550 Fairfax, Indianapolis, Indiana.

With all this help who could go wrong? As far as how to apply a finish, that has been done many times by people who are better at it than I am, so revive one of these past articles and go from there.

I'd like to hear what you feel about this beast (not Jack—the plane... Editor.), so if you will write and let me know care of this magazine I'd appreciate it. Send a stamped envelope with your return address if you wish an answer.



Termites ate the ribs? Jack tries some novel construction ideas, but he ends up with results. His fuselage is a typical slab-sided arrangement.



The completed framework, light, tough and durable structure. Notice the ribbed tail to aid in balancing. A thick airfoil, piles of engine power.



At left: Scotty gives an inkling of the size of the ship. Below: Distinctive with its ring cowling. It offers fine cooling, builds up easily. Snoopy checks out instruments.

