

● Aiming to enter the prestigious MB P.P.P.P. contest, I looked, like lots of entrants, for an original and unpublished model. After much searching, I decided on the P-T, quite a futuristic design for 1911. "The pilot landed at 130 Km/hr. and he wasn't killed!" was the triumphal commentary of a contemporary chronicler writing in the *Aerophile*. Rather than being inspired to build this plane based on that, I decided that the excellent layout of the plane, elliptical dihedral, and generous tail surfaces made it the perfect choice.

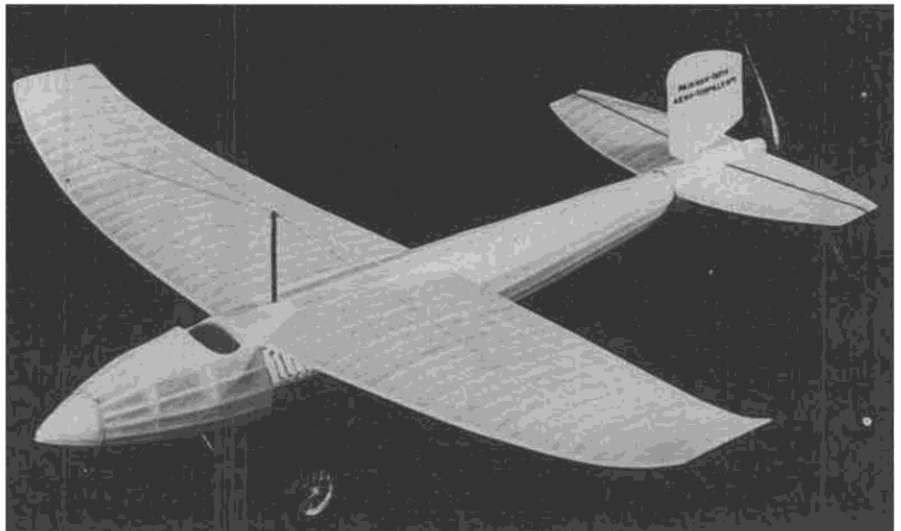
Weight being the enemy, I used Micro-X indoor wood to help keep the tail as light as possible. It is highly recommended that the builder of this model pay strict attention to keeping the tail light so as not to have to add weight to the nose for balance.

#### FUSELAGE

The fuselage is made up of three parts. The central body is made up of the "keel and former" method (as illustrated in the book *Flying Models of WW-II*). You will notice that the formers 6 through 10 are thinner. Small sections demand extra care and alignment. The paper covering will add a lot of strength later. The nose block is made of hard balsa half-cones with some balsa strips glued on to represent stringers. The 1/32 piano wire in the nose has the function of "antenna" and front motor hook. Epoxy it in solidly!

The sternpost is the essential piece, not only supporting the prop assembly, but the stabilizer, rudder, skid and its struts, and the hope of the builder to get a light model. It can be made from a very soft balsa block, hollowed out, or by covering styrofoam with thin balsa sheet (1/72 in. thick) and hollowing to get it light.

The "FRENCH CONNECTION" flexible prop-shaft drive allows the alignment problem caused by the prop installation and the 1.5° downthrust to be easily solved. I used bits of hypodermic needle (useful recovery of a painful remembrance) and some U-Control cable to make it up as shown on the plan. Tin the ends of the cable and then solder them into the hypodermic tubes. A thin brass washer is soldered on to serve as a thrust washer.



## 1911 PAULHAN-TATIN Aero-Torpille No.1

By J.F. FRUGOLI . . . Winner of the Pioneer Class at the 1977 Parcel Post Proxy Peanut Contest was this very unusual and good-flying early bird, which managed an average flight time of 28.5 seconds. Presented by one of France's best Peanut designers.

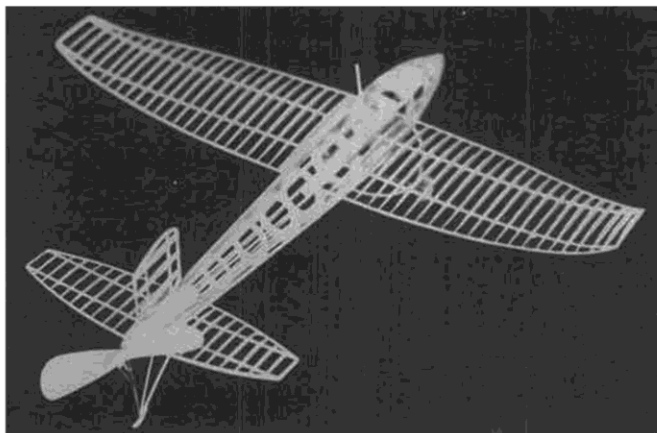
Its position near bulkhead 12 keeps the cable free from any tension which might interfere with its operation.

The propeller is laminated from balsa strips and is quite light and efficient. As Peanuts are hand-launched, the fact that it extends below the tailskid is of no consequence.

The tailskid assembly is made up of fine, tough straws which grow in the south of France. If you can't find these in your local hobby shop, you may have to improvise with broom-straws. Whatever you use, remember to keep it light back there. They are glued together with rubber cement. The struts labeled "H"



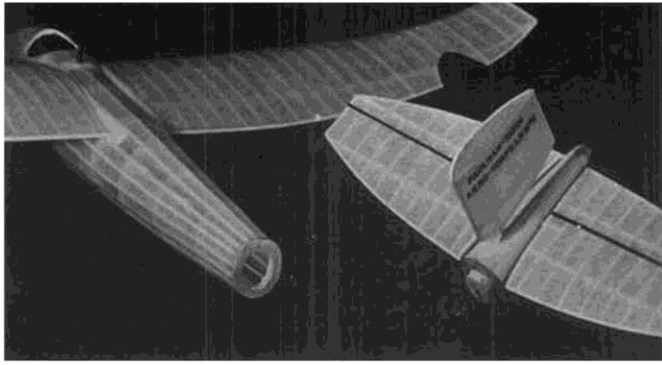
"Aero-Torpille" is French for "aerial torpedo" . . . a fitting name, judging by those clean lines. Doesn't matter that the prop hits the ground, as Peanuts are hand-launched.



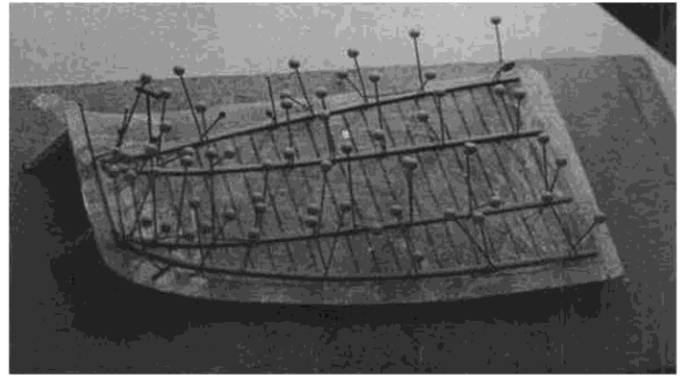
Weight of the finished model is about 1/2 oz., most of this being nose weight to balance the busy tail section. *Build the tail light!*



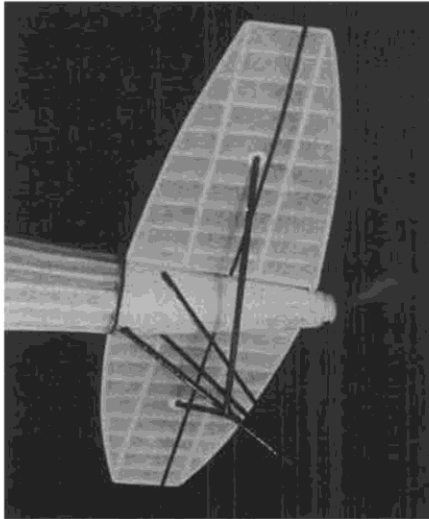
Noted scale F/F'er, Bill Warner, with the Aero-Torpille he built from Frugoli's plans. All photos in this article are of Bill's model.



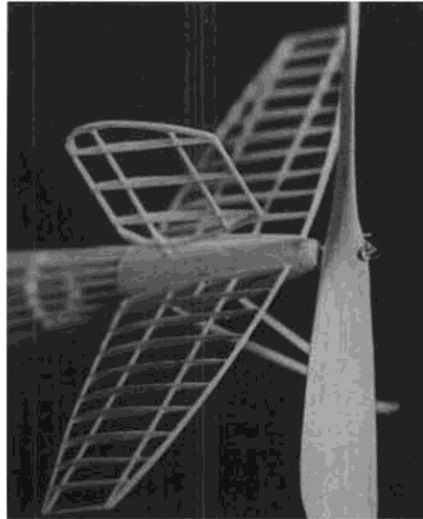
Tail section is removable for winding. Lettering on the rudder and on the fuselage was done on a piece of Scotch Magic tape, then carefully stuck in place.



The elliptical dihedral wings are built in a special jig. L.E., T.E., and spars are soaked and then laid up on the form.



Tailskid is built from thin bamboo strips or, lacking these, you might try broom-straws.



Prop is driven through a flexible cable drive, fully detailed on the plans.

on the plan are glued in place only after the plane has been flight tested and the final stab adjustment made.

The two parts of the stab fit into a paper tube, as does the rudder. After flight adjustments are made, a drop of cement will keep it in place.

#### THE LANDING GEAR

Use split bamboo with the shiny side facing out on the two principal curves. Make a template with the curve needed, soak the bamboo, and bend using a flame or a soldering iron to heat it. Keep trying until it matches your pattern. The axle is the classical straw strengthened by some .015 music wire and tied with cotton thread to simulate the original "shock absorbers." The curved legs of the landing gear are glued on the formers with rubber cement. Hungerford 3/4-inch spoked wheels complete the setup.

#### WINGS

For the rather unusual wings, you must first build a jig of balsa or cardboard. Trace the front view curve of the underside of the wing on a couple of sheets of cardboard or balsa and then "plank" across them with thin balsa sheet or cardboard to give you a curved construction surface. You might want to cut out a wing panel from the plan and cement it directly onto the jig you have just built. A bit of Saran Wrap over this

and you are ready to lay the soaked 1/16 sq. L.E. and T.E. over the form to get that double curve. It might help to cut forms for them also as seen from the top. The spars are 1/16 x 1/48, made from balsa sheets glued together with hard glue. The ribs are made as shown on the plan, with form "B" lengthened to the size of "A." Cut the ribs in a block and then cut each down to length as they are needed. (There are 48 in all!)

Note: The left wing has about 5/64 inch wash-in at the tip. The wings must

be covered before attaching to the fuselage. The joining points are covered after assembly.

#### STABILIZER

This is built inside a cardboard form. All ribs have the same thickness, with the root rib being shortened for each successive one.

#### FINISHING

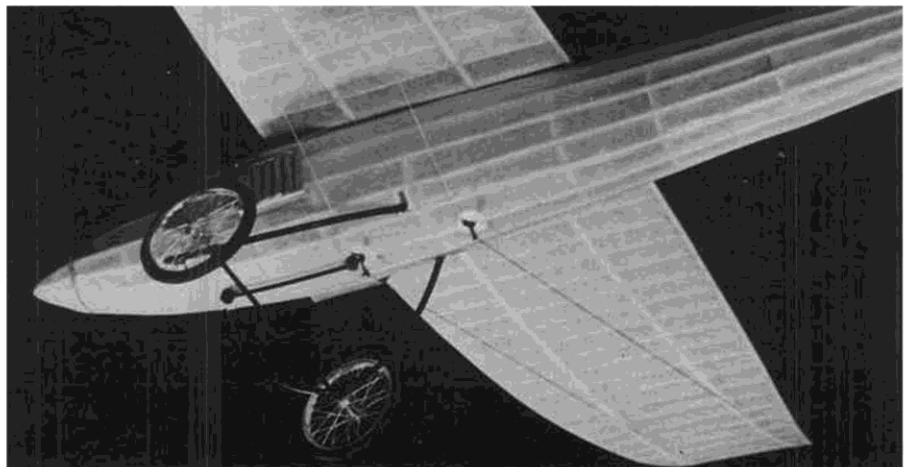
Covering is antique white, the lightest tissue you can find. The only markings (black) are AEROTORPILLE No. 1 on the right side of the fuselage and PAULHANTATIN AEROTORPILLE No. 1 on the left side of the rudder only. Shrink the tissue using steam or after-shower humidity to avoid warps. One coat of 50/50 nitrate dope or banana liquid is enough.

The metallic engine cowl is made up of thin plastic sheet. Rigging is done with silk thread, as it does not ravel and is very strong.

#### FLYING

On the original, only a little nose weight was needed to secure the correct balance. Winding is done from the rear and anti-clockwise. The rubber is wound with the sternpost withdrawn so as not to put a stress on the flexible connector cable, and is then hooked up.

In conclusion, this short exposition is therefore based on the recovery of a needle that a delightful and gentle feminine hand wildly planted in your delicate posterior epidermis. With some wood, glue, and paper, you can then begin construction. Good flights. . . ●



The main landing gear is also made of bamboo, formed to shape over an open flame or around a soldering iron. Rigging wires are gray silk thread; engine louvers are beer-can aluminum.