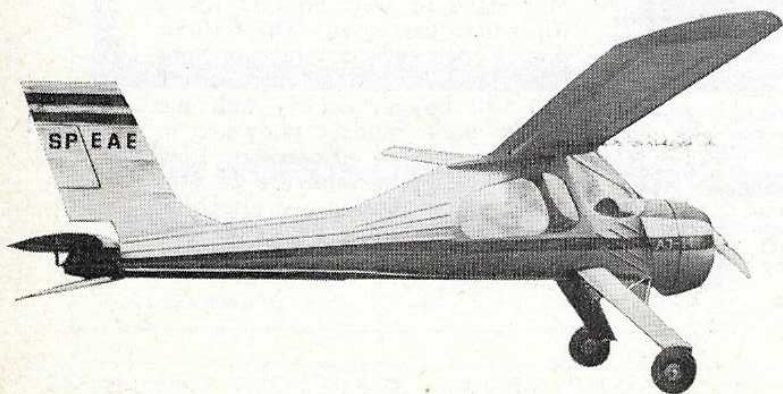


THE AIRCRAFT pictured on these pages is in fact the second such model made—the original having met an unfortunate end under the wheels of a van at the 1970 Nats., without ever having become airborne. We must all be aware that whilst there is not always an official speed limit at rallies sited on airfields, commonsense should prevail. If the driver had been travelling at a reasonable pace the unfortunate incident could have been avoided. As it was, one model was reduced to matchwood in one second flat—not a fitting finish to several months' careful work!

A second version was built once again scaled from the *Aero Modeller* scale drawings (plan pack No. 2910, price 35p.) At 1/12th scale, with a wing span of slightly over 3 ft. and powered by a DC Dart, I was still convinced that it would make a beautiful model, and moreover a lovely flyer. The fruits of labour were not in vain, the *Wilga* proved to be everything I had hoped it would be! When trimmed out, the flight pattern proved to be a steep left hand climb followed by a gentle left hand glide. Flown straight off the board (as the saying goes), apart from slight packing under the tailplane to increase elevation, the model flew in very tight circles, but it was felt safer to open out the turn as the tendency for the nose to drop is always there.

Careful selection of woods is a 'must' if the weight is to be kept down, while fuselage construction with anything but very soft wood will prove difficult. Basically easy to build, the fuselage construction is unusual and the following notes on construction might prove helpful.

Firstly, the fuselage main formers are cut out, laminating where necessary, and adding the reinforcing sections for gluing, etc. Sew and epoxy the undercarriage, after bending from 14 swg, to the rear of former C. Basic assembly is a hand held affair, so careful alignment is a must. The various components key together, and if cut accurately the assembly will be self-supporting. The builder can then decide how far to take the assembly in



a 36 in. span, free-flight

scale version of the

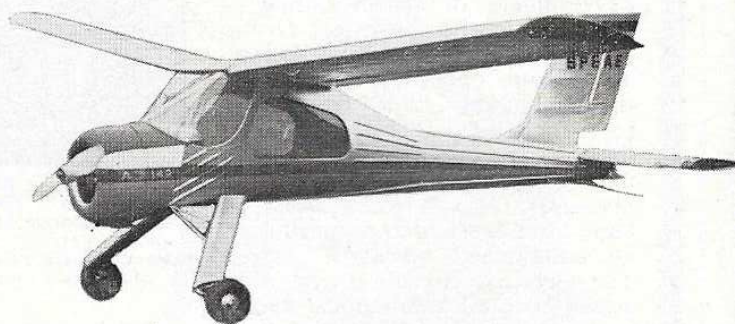
Polish glider tug, the

PZL WILGA 35

designed for 0.5-0.75 c.c.

engines by P. HAYWARD

one go—the isometric sketch shown on the plan reveals the fuselage construction clearly. Once the basic assembly is completed the $\frac{1}{8}$ in. square stringers are added and the top rear longeron fitted and glued. If the nose of the fuselage is placed on the edge of a table or building board, the engine bearers and front former can be carefully checked for alignment, which is naturally most important. Completion of the undercarriage is next; the forward cross pieces being soldered to the main legs and



then once more stitched and epoxied to the fuselage. Fuselage sheeting must be undertaken in two halves, each half overlapping the keel and top spine. The cabin area is sheet covered completely and then when the glue is dry, the glazed areas are cut out. Centre section wing ribs are keyed onto former C and the incidence angle must be checked with extreme care, as well as making sure that all is square. Brass tubes for wing retention are epoxied into position followed by all necessary sheeting to complete the assembly. It is worth mentioning that the two hardwood dowels at the rear of the cabin window are important and most necessary for rigidity in this area. Block balsa is used to fair-in the extreme rear fuselage once the rear wheel assembly is completed and installed. Cowling construction is from $\frac{1}{2}$ in. strips of balsa assembled around a suitably sized and tapered receptacle—a plastic beaker being ideal. The inside front face must be built up to facilitate the sharp taper at the bottom. Acetate windows are installed using an impact adhesive, any excess glue can easily be wiped off with a rag dipped in cellulose thinners, and it is suggested that this operation be carried out as late as possible in the assembly, in order to avoid any damage or scratches to the glazing.

The wings are very basic assemblies; the flaps and slats being built separately and added after all covering and painting is completed. Tailplane and fin assembly

present no problems, the fin being glued in position and the tailplane retained by elastic bands. Hooks for wing retention slot into the fuselage section and elastic bands hold everything together rigidly. Lightweight tissue was used to cover the entire model, including the fuselage, and sufficient thinned clear dope applied until all tissue pores were filled. Two or three coats should be ample. The full size aircraft was covered in fluted panelling and whilst this could be reproduced on the model, the weight must be watched carefully.

Finish is silver overall with red and black trimming, and whilst on the subject of silver finishes I must add that I find silver dope to be extremely easy to use. It seems that much has been written on the difficulty of applying this silver finish and on the problems of fuel proofing it, but I find that no problems occur with *dope* and proofing can be either clear polyurethane or enamel with no ill effects, whether sprayed or painted on.

With all construction and painting completed, we now come to the flying, again a subject upon which much has been written. We are always being told that the model should fly, and it is always supposed that 'all is well'. What to do if it isn't? Just what is supposed to be the answer when wing incidence cannot be increased and the thing just won't fly, as has been my experience on more than one occasion with differing types of planes, scale and otherwise? Possibly Mr. Eric Coates, whose excellent articles are of immense value, would like to comment on this problem. However back to *this* model, where the



incidence angles may be altered by balsa packing if desired. Long grass is essential for trimming flights, both for the glide and early powered flights. The only alternative is allowing the model to take-off from a runway, gradually increasing revs until full power is being used. The flight pattern once trimmed is very realistic and a R.O.G. can be undertaken without fear of repercussions—the tail wheel comes up in a few feet and once airborne, she sticks her nose up and flies beautifully. What a shame the weather has been so bad this summer—still, here's hoping for next year!

FULL-SIZE COPIES OF THIS ONE-SIXTH SCALE REPRODUCTION ARE AVAILABLE AS PLAN No. FSP 1178, PRICE 60p PLUS 5p POST, FROM AEROMODELLER PLANS SERVICE, P.O. BOX 35, BRIDGE ST., HEMEL HEMPSTEAD, HERTS HP1 1EE.

