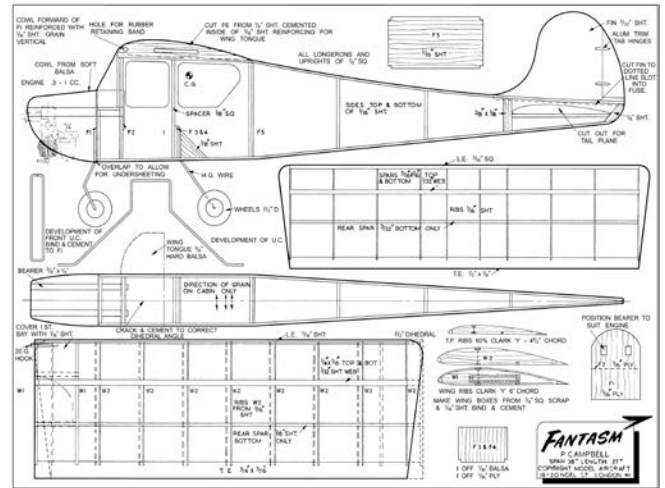


Fantasm



A 38 in. wingspan model, just right for any .75 – 1.3 c.c. motor, and very nearly crash proof by M. Campbell.

Fantasm was designed and built as a simple rugged model for small space flying, with regard to the odd trees, goal posts, etc., that litter the local park and have such an attraction for model planes seemingly bent on destroying themselves.

The sheet fuselage and knock off wings have proved their worth in this respect, and justify the extra work.

Fuselage: Mark off and cut out two identical sides from medium 1/16 sheet, with positions of all uprights and details. Cut out windows, wing tongue slot, hole for wing retaining band, and tail plane position.

Sand outsides smooth, cement to sides longerons and all uprights, including F6.

Cement celluloid to insides of windows, make up front and rear wheel assemblies, binding and cementing well to 1/16 in. ply formers F1 and F4.

join sides with all cross pieces and formers, F1, 2, 3 and 5, cover top of fuselage with 1/16 in. medium sheet, after sanding outside smooth, grain running along fuselage, from F5 rearwards, leaving half of F5 and 1/8 in. X 1/8 in. cross piece exposed for butt jointing cabin roof later.

Cement rear undercarriage to fuselage with 1/8 in. sheet gussets. F3 locates this assembly. Drill holes in engine bearers, and bolt to engine, slide into position, and cement well, with side thrust as shown on plan.

Cover bottom of fuselage with 1/16 in. medium sheet, grain lengthwise, sanding outside beforehand.

Remove engine and fill in between engine bearers and cowl sides with 3/8 in. sheets, add 1/16 in. sheet grain vertical to insides of cowl cementing well giving a plywood effect to reinforce them. Plank in from F1 to F2 for windscreen decking, 1/16 in. medium sheet is used for this. Make up soft block lop cowl hollowing out to suit engine, using dress fasteners or your own method for holding it in place. Cut out wing tongue from very hard 1/8 in. sheet (balsa off cut packs are useful for this) or ply, crack down center for dihedral angle and place in position, but do not cement.

After wings are built push on to tongues, block up tips to correct dihedral angle and cement tongue using scrap balsa to reinforce where cracked. Cover top of cabin with 1/16 in. sheet grain across fuselage, and fit windscreen, cementing inside 1/16 in. sheet at front cabin supports up against the 1/8 in. sg. upright.

Wings: These follow normal construction except maybe the I section mainspar, which is very strong as well as light and well worth the extra construction on any model. Mark off and notch trailing edge, pin to plan. Make up ply rib template and cut out all ribs, trimming root ribs as shown for sheeting. Position 1/4 in. X 1/16 in. bottom mainspar and 1/8 in. X 1/8 in. secondary spar. Cement all ribs in place with leading edge. Assemble wing boxes bind and cement well, fit in between root ribs using 1/8 in. sheet to line up with slots in wing ribs. Reinforce with 1/8 in. X 1/8 in. scrap, and use 1/16 in. sheet for webbing between top of box and top mainspar. Cut out 1/32 in. sheet webbing pieces and cement in place between ribs and

Fantasm

in center of bottom mainspar, then cement in top spar and wing tips. Wing retaining hooks are cemented in place as per plan, and top of root sheeted in, remove from plan and repeat for underside.

Finishing: Sandpaper fuselage lightly, rounding off all corners. Cover completely with rag tissue, using paste, or doping fuselage and "brushing" on with thinners; give two coats of clear dope and two of sanding sealer, sanding in between coats with fine sandpaper. Colour dope as desired, an all sheet construction allows a good finish to be obtained, and if you are using a heavier engine than the original Mills .75 c.c. it will help to get the correct c.g. position. Wing and tail plane are sanded smooth all over and covered with medium rag tissue, double cover tail plane where shown. Water spray and give two coats of clear dope, colour trim as required.

Flying: Balance model at c.g. which can be slightly behind but not in front of position shown. This should give a long flat glide, if not pack up tail plane to obtain one.

Set the trim tab for left circles. An 8 in. X 4 prop gives steady flights with Mills or Amco though down thrust may be needed if the engine is not giving its best.

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