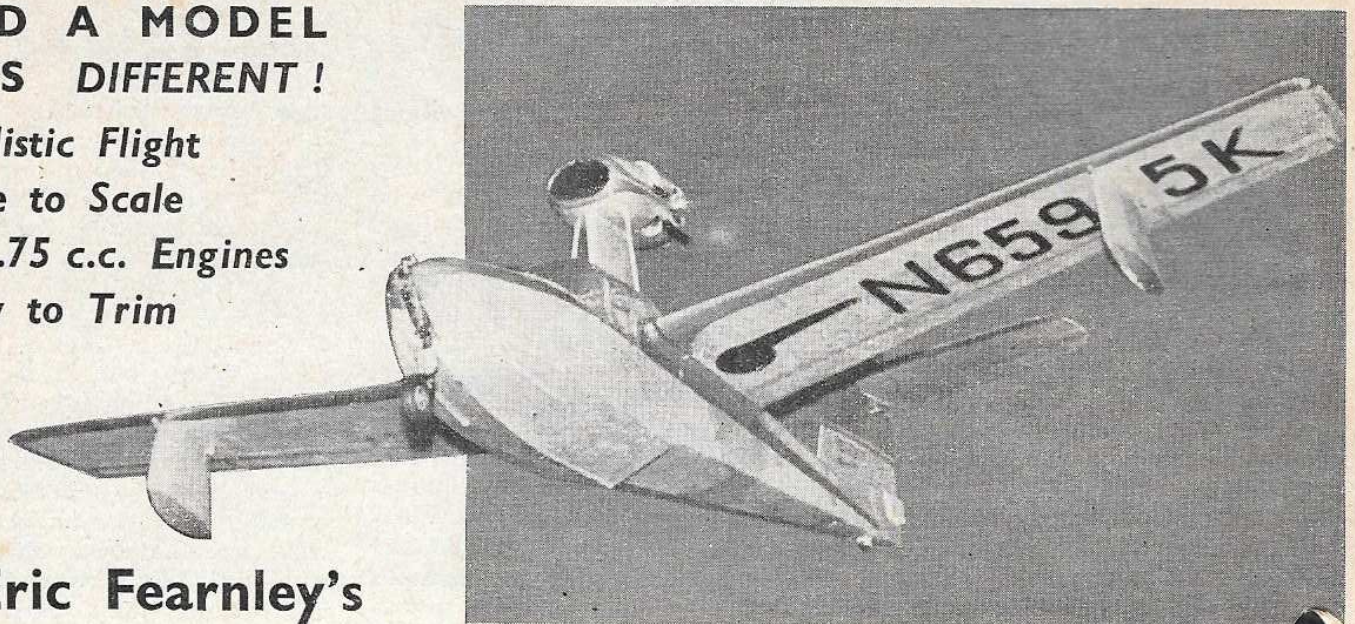


BUILD A MODEL THAT'S DIFFERENT!

- ★ Realistic Flight
- ★ True to Scale
- ★ For .75 c.c. Engines
- ★ Easy to Trim



it's Eric Fearnley's

COLONIAL SKIMMER

IF you have had your fill of A.O.P.'s and high wing cabin scale models, here is something really out of the rut. As soon as I saw the *Skimmer*, I had to have a go at it. To me, it had much of the appeal of the *Seamew* about it, and that model is still going strong after three years of sport flying. Building was commenced on the *Skimmer* and as it neared the covering stage, the 1956 Nats. were switched to my own doorstep, as it were. Although I don't think much of competitions, I thought I would enter this model for the Super Scale Section.

The British Nationals is not the best place to flight test a pusher flying boat, with a few hundred spectators and the judges tapping



Eric Fearnley flight tested the *Skimmer* in the Nats. super scale contest!

their feet; however, the crowd gave it a rousing send off as it took off and bored its way into a stiffish breeze, as steady as a rock. Few of the people watching knew that it had, in fact, never taken off before, and had not flown with the main wheels in place. As these weigh 3 oz. it had put out my calculations, and I had two dummy runs before the Mills was giving its full power to r.o.g. the *Skimmer*. The trouble was due to the carb. intake facing forward into the airstream, which is aggravated by the venturi effect of the engine cowl. As soon as air speed was gained, the air pressure weakened the mixture. I cured it by fitting a scrap of celluloid to break the air stream.

The *Skimmer* also had the honour of being the last plane to fly at the Nats. After the 6 p.m. flying ban was imposed I was approached by a group of R.A.F. types, including an officer from Binbrook, who asked for a demonstration flight. My club mate, Bud Hibbitt, who retrieved the model, very nearly ended up in the glasshouse for flying after curfew. He was saved at the eleventh hour by the intervention of the C.O.!

The model is not, generally speaking, a difficult one to build, but there is a good deal of work in it, so don't expect to be flying it in a hurry.

Cut out two fuselage sides from

$\frac{3}{32}$ in. firm wood. Take care with the slots for the tongue. The formers are all $\frac{1}{8}$ in. except the ply one where the cabin goes, and the front one is of $\frac{1}{2}$ in. wood. Cut these out, also the ply tongue and the motor mount, and assemble by fitting the two sides to the tongue, after the latter has been saw cut and cemented at the correct dihedral. Cement motor mount in place on top of tongue, add the formers either side, and when all is solid, pull in the nose and tail and add the rest of the formers. Finish by planking the top, and sheeting the bottom. If the fuselage gets out of true, steam during this process. If the model is to perform on water, care will have to be taken to seal up the cracks as building progresses.

Finish off the fuselage by adding the front of $\frac{1}{2}$ in. sheet, and add any cabin detail before fitting the celluloid.

The engine cowl is built up with $\frac{1}{2}$ in. sheet as shown. Carve to shape and cut away the hatch for engine access. The Mills 0.75 is recommended as it goes both ways, and obviates a left hand prop. The writer's model weighs 20 oz. without the main wheels and has reserve power. With the wheels added it still has ample power to perform in a scale manner.

(Continued on page 384)

FULL SIZE WORKING DRAWINGS ARE OBTAINABLE FROM YOUR LOCAL DEALER, OR BY POST FROM THE "MODEL AIRCRAFT" PLANS DEPARTMENT, 19-20, NOEL STREET, LONDON, W.1, 5s. 6d., POST FREE

The Colonial Skimmer *continued from page 382*

With the high thrust it will tend to pull in on power unless upthrust is built in as shown. It is almost impossible to power stall this model, although the tail angle will require careful setting to obtain a flat glide. No side thrust will be required. The prototype will fly into the wind to the last drop of fuel with a straight rudder. It is best to allow for a fairly fast flight, as this increases the efficiency of the tail. This is common to all scale types.

The wings and tail are straight-forward. Boxes of hard $\frac{1}{8}$ in. sheet are bound with strong thread and fitted to the wings with plenty of cement, taking care that the wings line up when viewed from the trailing edge during the fitting. If they do not, don't worry, as the boxes can be filed away until they do, and ply inserts fitted to correct. Nothing matters as long as the wings are dead true! Taper the tongues away at the tips so that as soon as the wings start to come off they are relieved in an up and down direction. This will save the tongue or box from breaking in a crash, as the wings can "give" upwards as they come off. The landing gear is fitted to the wings by a block of sycamore (or similar wood), which is drilled to take the wire fork. Wheels are optional on the model, but the r.o.g. is worth it if you have a hard surface available.

The prototype requires no ballast,

in spite of the rear position of the engine. This is partly because there is a good deal of interior cabin detail fitted. The very wide glazed cabin makes interior furnishing almost a necessity.

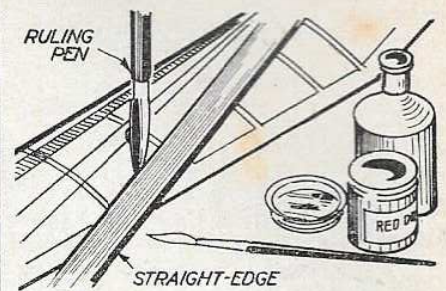
Hard wood strakes were fitted to the hull bottom to save the inevitable wear when landing on a runway. A small blister of hardwood is fitted for a tail bumper.

The model has an excellent glide from a hand launch. Adjust the tail until it glides without stalling when it is launched vigorously from head high, and we are ready for power. If insufficient upthrust is fitted, it will nose in on full power, but most likely fly if power is reduced! This makes a change from the usual power stall.

All in all, it is not a difficult model to trim, in fact nothing like as tricky a job as it first appears. The large amount of forward area tends to give stability. The burning question "Will it R.O.W.?" I can't answer yet. It floats tail down in the water, which gives it a high angle of attack early on in the taxi, and Col. Bowden, in his power model "bible" which I have had since 1938, states that it is essential to have the step well forward of the c.g. for good take offs. This being true (and I am quoting an expert) it looks as though the *Skimmer* could manage it. I am certainly going to try it soon!



The spacious cockpit of the *Skimmer* provides scope for plenty of interior detail and cancels out the need for ballast.



DOPING-ON TRIM

Quite elaborate "trim" to wings, etc., can be applied with the aid of a ruling pen and a brush. The only other materials required are coloured dope, thinners and a straight-edge (which can be a length of balsa strip preferably at least $\frac{1}{2}$ in. wide).

The pattern required can be marked out on the surfaces to be treated with a soft pencil (e.g. B or 2B). If the pattern is fairly straightforward it is usually sufficient to do this freehand, relying on the use of ruling pen and straight-edge to produce clean edges and straight lines.

The technique is to use coloured dope in the ruling pen to draw on the outline, then block this in with colour to complete the trim. The ruling pen should not be used freehand, but always guided by the straight-edge laid over the work. For curved outlines, of course, use a French curve.

Ordinary coloured dope will flow easily in a ruling pen—if you follow this technique: lift some dope out on the brush into the lid of the dope jar. Add thinners to make up a fairly running mixture, then thicken with a little more dope. This should be dabbed into the lid in a blob and not deliberately mixed with the thinned dope already there.

You will now find it possible to adjust the consistency of the colour picked up on the brush and applied to the ruling pen, depending on whether the brush is placed in the "thin" or "thick" mixture. Balance until the dope will just run freely from the ruling pen. Too thin a mixture will run all over the surface and not give a clean line. Too thick a mixture will not run—so touch the ruling pen with the point of the brush dipped in "thin" mixture. A little practice and you will find that this technique is very effective, and very simple.

One final tip to remember—always clean the pen by rubbing on a cloth after every line ruled, and whenever the dope in it thickens up to the point where it will not run any more. And don't use your handkerchief!