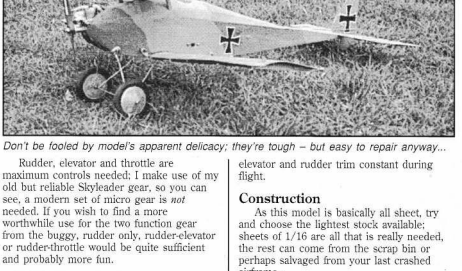
WW1 dog-fight fun with S. Salmon's all-sheet Halberstadt

Simple Scout

First World War models are my particular favourites but the time taken to build one of these, then their suspectibility to hangar rash and flying damage – or should I say landing damage – make these models a major cause of heartache. Especially as in the club I fly dog fighting is a popular pastime. Several very nice models have bit the dust because of this. If this sounds familiar, here might be your answer – a small, all-sheet model quickly built, fun to fly, easy to repair, and cheap to both build and fly.

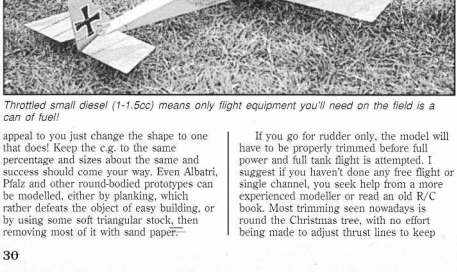
This is also an ideal model for that lunchtime flying session or to stick in the car when going away. My PAW powered model is particularly good for this, only needing a small can of diesel as flight support, and with the addition of a piece of plastic pipe added to the silencer to duct away the exhaust, very quiet too. In fact, when flying with other IC models, the only time I hear my model is when starting the engine!

Luckily the engine is a very reliable throttler. My favourite prototypes come from the earlier part of WWI and if it doesn't appeal to you just change the shape to one that does! Keep the c.g. to the same percentage and sizes about the same and success should come your way. Even Albatri, Pfalz and other round-bodied prototypes can be modelled, either by planking, which rather defeats the object of easy building, or by using some soft triangular stock, then removing most of it with sand paper.



Don't be fooled by model's apparent delicacy; they're tough – but easy to repair anyway...

Rudder, elevator and throttle are maximum controls needed; I make use of my old but reliable Skyleader gear, so you can see, a modern set of micro gear is *not* needed. If you wish to find a more worthwhile use for the two function gear from the buggy, rudder only, rudder-elevator or rudder-throttle would be quite sufficient and probably more fun.



Throttled small diesel (1-1.5cc) means only flight equipment you'll need on the field is a can of fuel!

If you go for rudder only, the model will have to be properly trimmed before full power and full tank flight is attempted. I suggest if you haven't done any free flight or single channel, you seek help from a more experienced modeller or read an old R/C book. Most trimming seen nowadays is round the Christmas tree, with no effort being made to adjust thrust lines to keep elevator and rudder trim constant during flight.

Construction

As this model is basically all sheet, try and choose the lightest stock available; sheets of 1/16 are all that is really needed, the rest can come from the scrap bin or perhaps salvaged from your last crashed airframe...

Wings

Choose evenly matched sheets of 1/16 and join by Sellotaping together, folding shut, filling the joint with glue (I use PVA for all the gluing), then fold flat, weigh down and leave to set. While drying cut out ribs and dihedral braces. Now cut out four wing panels and two centre sections, then weigh down flat to dry. Don't forget to angle inboard rib on wing panels to allow for dihedral. When dry slide panels over dihedral braces, glue, weigh down straight and leave to dry. Small ply pieces for the struts can now be added to the necessary ribs.

Tail surfaces

Simply cut out the desired shape and add stiffening ribs; with all-moving tailplane glue front and back pieces to spruce spar, and then add stiffening ribs.

Fuselage

Cut sides from 1/16 sheet add longerons, doublers and struts, add bulkheads to one side and, when dry glue other side to bulkheads. Making sure all is square the tail ends can be drawn together. Add top and bottom sheeting, top stringers and wire tail skid and rudder hinge assembly. Make sure to add brass tube for rudder hinge before soldering. Now glue in wing retaining dowels, undercarriage dowel and engine

mounting plates. The undercarriage is simply bent to length and soft soldered, using fuse wire to bind together.

Assembly

Band on bottom wing and check for squareness to fuselage sides. When satisfied glue on tailplane making sure it is square with both fuselage and bottom wing. Then tack glue on top wing bearers to centre section struts, mount top wing onto bearers and, if all is square, glue bearers on permanently reinforcing with thread. Interplane struts can now be made to the right length – these are for decoration only and add no strength.

Control surfaces

The elevator is hinged with tape and the rudder is cut in half and epoxied to its brass tube. Control horns are cut from 1/8 ply and glued into position.

Finish

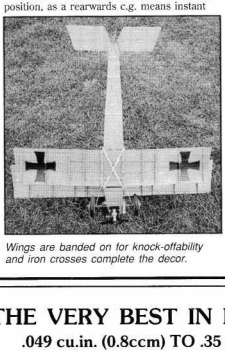
The model had two coats of plasticized dope with gentle rubbing down after each coat. It was camouflaged in green and brown on top with light blue undersides though it could have been left in plain finish or the purple and green scheme. Crosses where then added and a coat of silk varnish to fuel proof.

Radio installation

I use lightweight control line for the closed loop systems on my models. All joins being simply soldered with no adjustment used – any that was needed was put in after the test flights. Standard radio was used and I used a throttled motor with 2oz tank, which, with a diesel in particular, lasts more than long enough.

Flying

Before we start please check on the c.g. position, as a rearwards c.g. means instant rebuild time. Also check control movements for being in the right sense and the correct amount. The control movements shown on the plan are those recommended; increase if you wish when you have got used to flying the model as the controls, in particular the balanced ones, are quite powerful.



Wings are banded on for knock-offability and iron crosses complete the decor.

Once you are satisfied and the engine is running properly, off we go! Anybody who can fly a rudder/elevator model should be able to manage one of these. I normally hand launch but if you fly off a suitably smooth surface ROG can be attempted. Once flying, keep control movements smooth and small till you are used to her. All normal rudder/elevator aerobatics can be flown and those of you brought up on aileron trainers will, no doubt, be surprised at the rate of roll, especially if helped with a bit of up elevator. In calm conditions this model can be flown really smoothly. When flying in more windy weather if is not quite so smooth but I fly mine happily in any conditions I would fly my normal sports models. I hope you build one of these models or a derivative and, if so, I hope to see you up there one morning on the Dawn Patrol!