

MODEL TECH CONDOR.

By Klaus Weiss

Model Tech manufactures high quality, pre-sanded almost ready to fly (ARF) balsa/plywood and fibreglass kits in both power and glider models.

One of their latest offerings is the CONDOR, an all balsa low wing, aerobatic slope soarer.

The Condor is described as a 'stunt' glider and when suitably ballasted, performs most of the manoeuvres applicable to rudder, elevator and aileron controlled slope gliders.

As an elevator and aileron controlled model, the Condor can be classified docile enough to be an aileron trainer in lighter winds and transformed into a hot performer in stronger winds and in the hands of an experienced pilot.

The Condor has a high degree of quality prefabrication and along with its relatively low price, has proven to be a popular choice amongst slope fliers. Building time is greatly reduced and the model is even hand sanded almost to covering stage. I sanded the parts with 100 grit wet and dry prior to covering, but the finish straight out of the box, is good enough to satisfy most people.

I have flown the Condor in light, 8kph winds and it has mixed it with other rockets in 35kph winds, without the addition of ballast. Being a low wing design, some form of ballast box would have to be built above the wing and in line with the CG, attached to the inside top of the fuselage, if you want to add ballast.

THE KIT

On opening the box, you are confronted with a glider which appears to be finished to the covering stage, and that is just about what you get. The balsa fuselage is sanded to shape and the foam core wings are balsa sheeted and wrapped in plastic to protect them. Shaped wing tips and leading edges are already in place, so all that remains is to install ailerons, torque rods, and join the wings.

The tailplane is constructed from balsa sheet and has also been pre-shaped, even up to the bevels on the rudder and elevator. The fin, rudder and stabiliser have large lightening holes cut into them, in an effort to minimise weight behind the CG.

All hardware is supplied, apart from rudder and elevator control rods. I used a fibreglass arrow shaft for the elevator because it is lightweight and flex free. There is still scope to change various items in this kit, to satisfy individual tastes.

CONSTRUCTION

All of the hard work is done in this kit, so really there is only the assembly to contend with. The canopy needs to be trimmed to shape and glued to the plywood frame. In the instructions, it shows the canopy secured by a locating dowel in the front and screwed to the fuselage top at the rear. I used a *Goldberg* canopy hold down at the rear and this snaps securely in place, providing a neat, flush fitting, finish.

I chose not to use the rudder on this model, so sanded the bevel off and glued it in place.

There is an option to bolt the wings on or use conventional rubber band hold downs. I chose the rubber band option, because the slopes where I fly are not good for landing and if the model comes down hard, a rigid mount may be more susceptible to damage. The risk is a little higher with a low mounted wing such as on the Condor.

Other modellers on the slopes have bolted the wings on, with no damage to date, so it remains a personal choice. A schematic diagram supplied with the kit outlines the method for attaching wings and general construction.



WINGS

The semi symmetrical wings are foam core, balsa sheeted, tapered and swept back. This configuration gives the Condor good upwind penetration and allows the model to perform many aerobatic manoeuvres. A small amount of built in washout adds stability and decreases tip stall tendencies.

The wings have been strengthened around the root section, by the addition of fibreglass tape under the balsa sheeting. the servo bay has been built into the wing and a false rib fitted.

Epoxy the plywood dihedral brace into the precut slots and join the wings with epoxy. Place a 50mm block under one wing tip to obtain the correct dihedral, whilst the epoxy is curing. Install the torque rods and ailerons in the usual manner. The addition of a strip of fibreglass cloth along the join, further strengthens the joint.

The Condor has been designed as a three function glider, (rudder, elevator and aileron) but if you do not possess a multi channel radio, then omit the rudder function.

Model Tech supply a small booklet outlining the construction sequence of their power models and this relates generally to the construction sequence of the gliders as well. Included in this kit is a diagram of the Condor construction sequence. It is reasonably foolproof, and should present no problems for the builder, when used in conjunction with the booklet.



FLYING

Balance the model within the range suggested on the diagram and it will fly well. The measurements are probably made along the join, (root) so they need to be transferred to the wing portion outside the fuselage. The distance will be very close if you just measure along the wing, close to the fuselage, anyway. All of the Condor owners I have spoken to have found the model to be a little tail heavy (Isn't that normal for all models?) so a bit of nose weight is required. I added 98gm (3.4oz) up front to balance my Condor. A few grammes could be shed if the tailplane group were sanded to a better section, but it is relatively unimportant on this model.

The Condor lifted out from the slope and into the lift with no trim corrections required. It flew docile and slow enough in the light winds to enable a couple of novice fliers to fly it without getting into too much bother. This model would be a good aileron trainer and yet offer the accomplished flier heaps of fun. The usual rolls, loops, stall turns and inverted flight was a snap with the Condor and its impressive appearance will make it a winner on the slopes. Experiment with control throws for more or less response, but the suggested throws are a good starting point. If you are looking for an easy to build, good performing slope soarer at a reasonable price, then have a look at the Model Tech Condor. (Do not confuse it with the other Condor kits on the market.)

Review kit supplied by Kelletts Hobbies, 17-19 Memorial Drive, Liverpool N.S.W. 2170.
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