BUILD FROM OUR FULL SIZE PLANS!

BANSHEE BABEE

Vic Smeed revives one of the truly classic models which influenced design philosophy for many years

Leon Shulman's Banshee more or less exploded on to the modelling scene in the States in the early 1940's, but the shock waves didn't really hit Britain until after the end of the war. Even those of us who had come to terms with the appearance of pylon models such as the Goldberg Zipper, thought it a monstrous looking contraption and it's effect on the Russell/Bowden school was sheer horror. There was, however, no denying it's performance and the unusual flight characteristics made it relatively safe to trim. A considerable advantage when it is remembered that few British modellers had much in the way of power experience. The design found some keen proponents and examples won at the British Nationals in 1947 and 1948 as well in innumerable other contests. It was kitted by Astral in 1947 and remained around on the contest scene for some four or five years. People gradually got used to the (then) unorthodox appearance and nowadays veteran fliers who shuddered when they first saw it 45 years ago now look back on it quite fondly.

Having met several contemporary clubmates of the designer, but not the man himself, a remark in casual conversation set the idea of a small scale version ticking away; I was looking for something ".049" size and recognisably vintage, and you can't get more recognisable than a Banshee. A quick shunt around with figures gave the simple scale of 2/3rds size, i.e. 33.3" span, as being the ideal for .049.

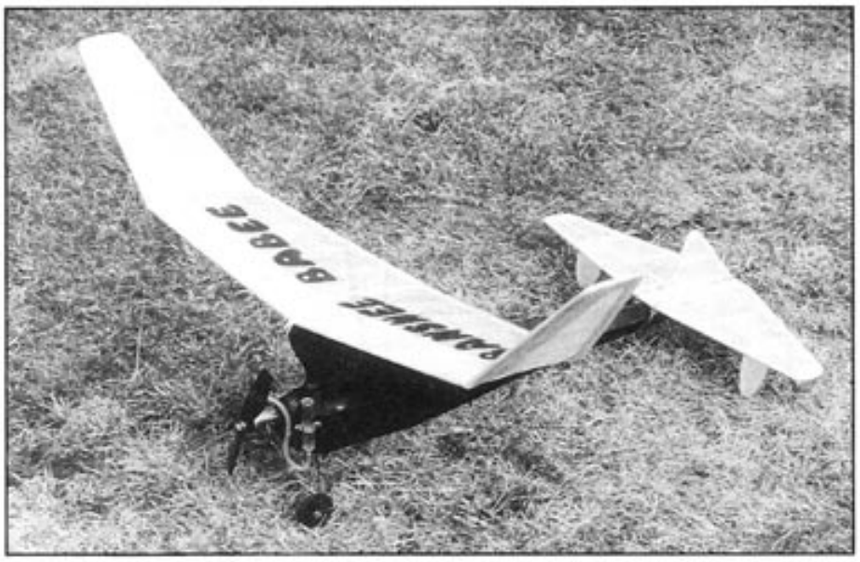
Some simplification of the structure (such as fewer ribs and formers) was desirable but the fundamental shapes and structural design approach were retained. The result is a model which requires a degree of care, particularly in the wing construction and which could not be recommended to an absolute beginner, though for someone with a little experience it is quite quick to build and surprisingly sturdy.

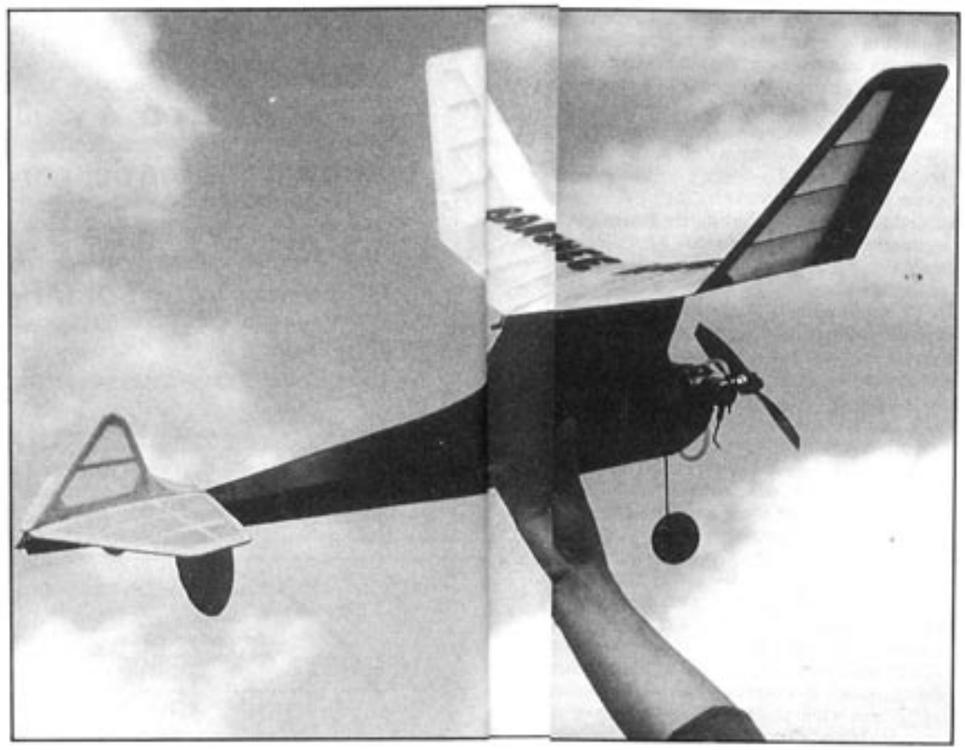
The model in the photos weighs exactly seven ounces and is powered by a 1950 D.C. Merlin. It climbs vertically, gradually slows, falls over on it's back and virtually flick half-rolls upright to climb vertically again and repeat the process fifty or sixty feet higher, very like the flight pattern of many 1940/50 Banshees. Given a shade more power it would climb vertically without the interruption, again like the full size model. It has a very reasonable glide and with careful trimming, keys on the wing and tail and a good motor it could be quite a serious contest machine. The Babee was not intended for publication but I have been asked for the drawings, so here they are. I hope that Leon Shulman will take it as a compliment and not a barefaced lift of his design!

Construction

Sketches on the plan show the fuselage assembly, which involves some tracing of parts and eye for alignment when the second half is added. The sandwich nose puts the thrust line 1/8" off centre but this offers no problem. The 1/8" sheet box formed by the pieces A,C,D and K securely anchors B1 and the soft blocks J lock the ply panels B to B1. Note that one B panel needs to allow for the undercarriage wire vertical and the other requires just a notch.

The sight and sound of a Banshee going skywards motivated a lot of modellers to take up F/F power competitions 45 years ago. Who has got the courage to put a TD 049 in this Babee?





That unmistakable Banshee profile, which dominated F/F competitions in the 1940s, is recreated in Banshee Babee by Vic Smeed.

The wing mount halves, G, are cemented in place and triangular fillets F fitted. Two 1/6" panels are needed ahead of B4 to mount a length of aluminium tube for the fuse snuffer. However people have their own ideas on D/Ts and I would expect to see examples of the model with clockwork timers. Although the dowels can be added before covering it is best to leave the pins, tailplane blocks, snuffer tube etc. to be positioned later. The model shown was covered with four pieces of heavyweight modelspan, watershrunk and then given about three coats of dope plus two thin coats of colour with two thin coats of polyurethane varnish on the nose area. The tank is a sawn-off 2ml plastic hypodermic syringe body held in a vertical groove in the nose with a small aluminium strap screwed in place.

Wing and tail are fairly conventional. It will be found far easier to build the mainspar and leading edge over the drawing, then build one wing panel at a time, rather than building separate wing panels and attempting to join them at the severe angles required. However, you may not agree! Care is needed with the tip ribs (R8 and R9) as there is not much wood below the spar notch. You could mark the spar and notch it to make it a halved joint with each rib. Add the softish L.E. sheeting to each panel when they are pinned flat on the building board. A couple of bits of 1/8" square between R1 and R2 on the top surface would be worthwhile to provide some protection against splitting the tissue with the mounting bands- the only damage suffered by our model.

Apart for allowing for the sub fins there is nothing unconventional about the tailplane. Scrap balsa between T3s provides an edge for the bottom covering and the sub fins can then be cemented on after covering. The centre fin is a flat structure from bits sliced off 1/8" sheet, cemented to the tailplane after covering.

Lightweight modelspan was used on the wing, tail and fins, with lettering cut from black tissue and doped on. The small positioning blocks for the tailplane and other odds and ends were then added.

Trimming

Surprisingly the model needed no glide trim adjustment whatever, balancing where shown 2 1/2" from the centre trailing edge. However the 50" version recommends 2 deg. of right thrust which we incorporated unnecessarily. The rudder (slewing the tail assembly) is not particularly sensitive (again like the big one) and we found that the best trim was right rudder (tailplane LE centre about 1/8" to the right) with the motor mounted straight but having, as mentioned, 1/8" displacement to the right. The downthrust shown happened to be the right amount for the fairly potent Merlin, but might need to be altered for a hotter motor. Later Merlins were less powerful and modern diesels around the size would have a shade more power.

Once again, acknowledgements to Leon Shulman who, we believe, is still active 50 years on from the Banshee design.