Jack Arnould's

BOEING B-47

a 19 in. span, profile scale, catapult launched glider, with ultra simple construction

AFTER FLYING your umpteen channel, high powered, flying bank roll through some hairy manoeuvres, COOL IT, relax and have some low pressure fun! Build this no channel, low cost, high start glider – just think, no engine noise, no radio problems, just plain old fun – but don't let your kids see it or you may never get your hands on it again! I know this to be true as I have four girls and this is the first of my many models that they have taken any great interest in. Now they are actually disappointed if we don't go out and fly it.

The plane is a 1/72nd profile scale model of the Boeing B-47, the world's first all-jet high speed bomber and the mainstay of SAC for many years, until replaced by the B-52.

Construction is quite simple and straightforward, and uses medium hard balsa throughout. First cut the fuselage from $\frac{1}{4}$ in. sheet, taking great care with the slots for the wing and tailplane. Keep the knife blade vertical and cut from both sides to avoid the slots sloping from one side to the other of the fuselage. Cut the hole for the ballast and then cement the $\frac{1}{32}$ in. ply nose doublers in place. Next cut the wings and tail surfaces from $\frac{1}{8}$ in. sheet and sand to section – also cutting the engines from the same sheet. Leave these parts with a square section except for the inner engine supports, which should be streamlined. The $\frac{1}{16}$ in. square strips inset into the leading edges of the engine supports are to stop the engines shearing off in a moderately hard landing; in a really heavy landing they will let go and save the wings from damage.

When all the individual parts are ready, mark out the control surfaces, cockpit cover, windows, and other lines shown on the plan with a felt tipped pen. Join the wing halves, not forgetting to put in the anhedral. When the joint is dry, re-enforce it with a $\frac{1}{2}$ inch wide strip of silk cemented to both sides. Next cement the wings to the fuselage, followed by the tailplane, Assemble the inner engines and cement them and the outer engines in place. Once dry, give the whole plane two coats of sanding sealer, sanding lightly between coats. This will waterproof the pen lines before putting on the transfers and will also help prevent warps in case you fly over wet grass. Apply the transfers and the model is finished! Didn't take long did it?

Now for the flying. Install the tow hook and balance the model to get a flat glide. The glide must be dead straight – this is very important to get a good high start launch. If the glide is not straight the model may swerve sharply while on the line and even crash before releasing from the line. Believe me when the model is still on the line she is really travelling and a crash at that speed will probably result in a complete wipe out. For a launching line I use 24 feet of rope wound elastic cord, the kind you buy at a sewing notions counter. This is much more durable than regular rubber strip, will not get cut by the grass, and is protected from sunlight by its covering. However, if you cannot obtain this, then use $\frac{3}{16}$ in. flat rubber strip. Attached to this is 30 feet of 6 lb. breaking strain nylon fishing line; a spark plug washer makes a good tow ring. With this set-up I can launch my model 75 to 100 feet in still air. I have made no attempt to determine the optimum rubber and line length, so be my guest!

Tow hook position is quite critical; make adjustments of about $\frac{1}{4}$ inch at a time. Note the kink in the tow hook, this enables you to vary the tow hook position easily and is self locking in the fuselage. Use care in inserting it in the fuselage so that it does not stick through the side and you should have no problem with it. If the climb is too steep then move the hook forward, if not steep enough, move back.

One word of caution: Never let anyone stand in front of you when launching the model, even the tow ring itself with no model attached could do serious injury if accidentally released when the line is stretched. Safety first. Never let anyone be between you and the anchor point when the line is under tension. For a line anchor, a stout metal tent peg can be used – the right angled section type which should be hammered securely into the ground.