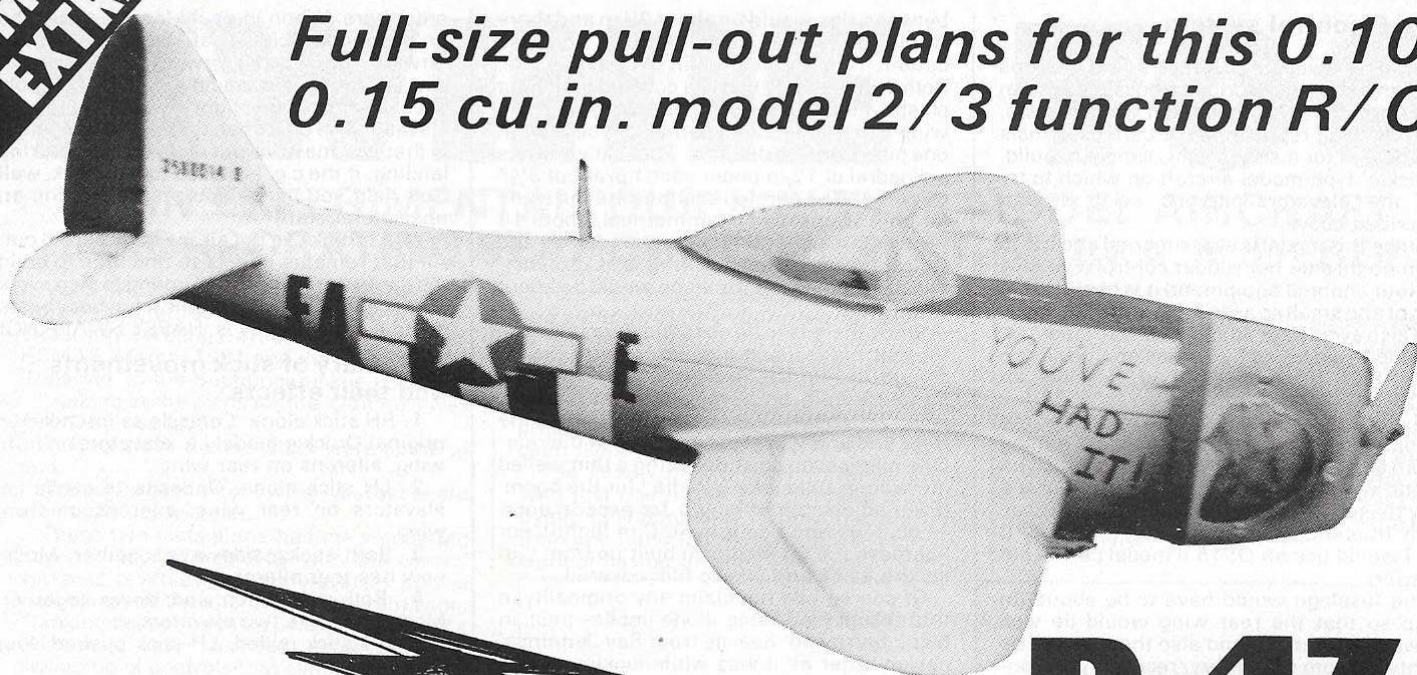


SUMMER
EXTRA

Full-size pull-out plans for this 0.10-0.15 cu.in. model 2/3 function R/C.



P-47 THUNDERBOLT

DESIGNED BY CLIVE SMALLEY

THE P-47D THUNDERBOLT was one of the really great aeroplanes produced during World War Two. Known as the 'Juggernaut' or simply 'Jug' to its pilots, due to its size and shape, it featured in many operational theatres, from Europe to the Pacific. Its exploits are legion, time and again badly damaged aircraft bringing pilots back to fight again, where lesser machines would have failed. Its ruggedness was a by-word among American and British pilots, and perhaps matched only by the ruggedness of its *Pratt and Whitney R2800* engine.

The 'Thunderbolt' was used in many roles from escort fighter to ground attack, and although perhaps best remembered today in the former role, its most useful work was probably after the invasion of France, in preventing the Germans from moving troops

and supplies in daylight. This effectively prevented reinforcements being moved to check the Allied troops from breaking out of the beach bridgeheads and racing across France.

Many of the top American Aces flew in this aeroplane and from its widespread use there are many highly colourful marking schemes, well documented in books and magazines. I have appended a list of useful references, though I make no claim as to its completeness.

The model was designed as a follow-on to my previously published FW190D (See

Below, plenty of room for modern 2 function R/C equipment in this equipment. Throttle control is a useful addition if third function is available, using latest mini servos, weight should be no problem.

RCM&E Scale Special 1979). The outline is as accurate as I could make it, the only obvious deviations from scale being the aerofoil section and the omission of some 'bitty' detail. There is plenty of scope to add whatever detail you wish, even a full cockpit interior could be included!

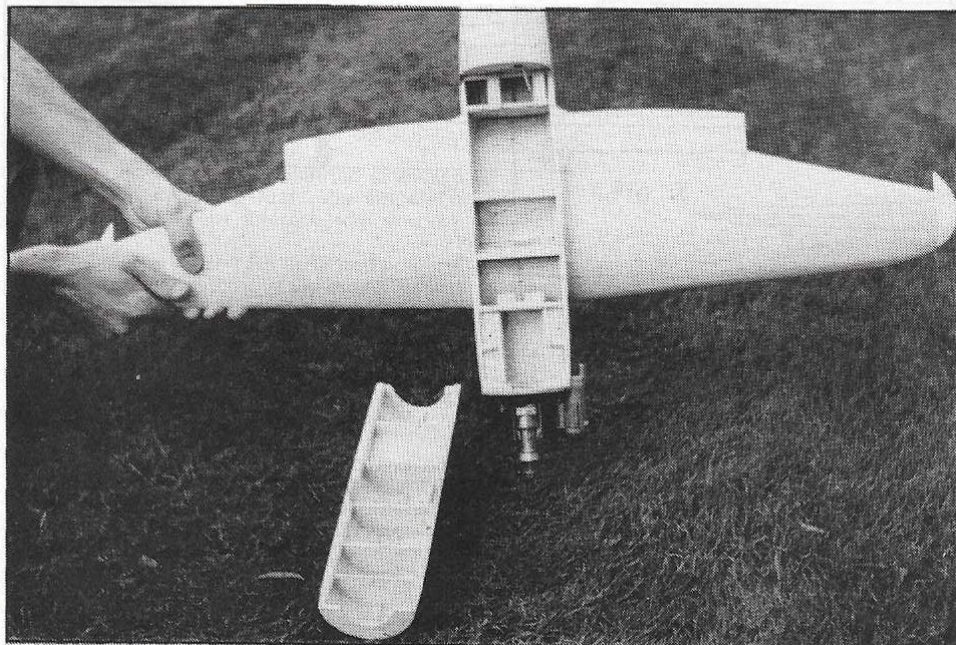
Using the micro servos and a 225mAh Ni-Cad it would be possible to add further functions, which would give some variation to the aerobatic performance, but beware of increasing the weight overmuch. The prototype performed well with two functions at a ready to fly weight of 1lb 15oz. using a 0.15cu. in. engine.

Construction is simple enough. If you don't fancy planking the fuselage you can easily resort to using large pieces of sheet, either wetted on the outside or doped on the inside to assist curvature. The prototype was in fact built this way, but a word of warning. It is easy to twist the fuselage out of true unless great care is taken to apply the sheet equally around the fuselage section. Planking is probably the better method on balance and is the method I would adopt next time.

The order of construction is fairly important. The wing must be built to the finishing stage before the fuselage can be skinned. Other than that no problems should be experienced.

The Wing

The wing is constructed directly on to the bottom skin, which is cut out to outline, minus the tip block. Add the spar, leading-edge, ribs, aileron spars, not forgetting to provide an exit hole for the aileron cable. Carve the LE to match the rib profile. Add the top skin, blocking up the LE at the centre and pinning down all the TE and tip to form the washout, as per the sketch on the Plan. The washout is *vital* and it is important to make this equal in each wing panel. When the structure is completely dry, cut out the ailerons, sand and hinge in position. The wing panels can be joined at the dihedral



specified. Glue and carve and sand the wing tips in position, cut out the upper skin for the aileron servo, fit aileron horns, and sand smooth overall. It is also worthwhile building in the servo support before the wing is glued to the fuselage.

The Tail Surfaces

The tailplane can either be built as per Plan, which gives a better scale appearance, or simply cut from $\frac{3}{16}$ in sheet if you are lazy.

The fin and rudder are straightforward but again for scale effect they are better built separately and joined on the hinge line.

The Fuselage

This is built on the horizontal crutch principle, using half-formers top and bottom. At the wing position, leave F5 and F6 complete until just prior to assembly with the wing. With the crutch complete and the half-formers in position, add the wing support saddles, the keel members and a few strips of planking to stiffen the whole assembly. Now cut away the centres of F5 and F6 and epoxy the wing in position, checking in all directions for 'squareness'. Fit the tailplane supports F13 and epoxy the completed tailplane in position. Similarly the fin/rudder could be fitted at this stage. Lodge the canopy on, hold the cowl in position, stand back and enjoy.

Glue the belly block in position but do not carve yet, plank or sheet the fuselage, sand the belly block now, and generally sand smooth overall. Fit the engine mount, hatch retainers, servo mount, cowl, canopy etc. You should now just about have a scale P-47.

Finishing

It would be possible to use plastic film if you are good at compound curves but I think sanding sealer, tissue, dope and paint is the better way. If possible spray the paint and fuel proofer as this certainly 'adds lightness'. Please don't be lazy and use any old colours but choose an actual marking scheme (I didn't). As previously mentioned there are many references.:

MAP Plan Pack No. 2793;
The P-47 Pts 1 & 2 *Kookaburra*;
The P-47 *Ducimus*;
Thunderbolt at War;
The P-47 in Action, *Squadron/Signals*;
Aces of the 9th, 12th and 15th AF
Kookaburra;
Aces of the Eighth *Squadron/Signals*;
Aces and Wingmen by Danny Morris;
Ninth AF History by Ken Rust;
Checkertail Clan by Ken Rust;
Slybird Group by Ken Rust;
Eighth AF Aces Pt 1 *Kookaburra*.

Flying

The most difficult part of flying this type of model is at the initial hand launch. It is preferable to get a helper to launch for you, so that your fingers are already tightly gripping the stick(s).

Providing the model has been constructed true, and balanced as shown or slightly in front of the indicated balance point, no undue problems will result. Even at the risk of boring everybody, I will stress *Do* check the R/C with the engine running and *Don't* launch unless everything is 100%. Although there is ample power with a .15cu. in. engine, a hand launch is a commitment to flight and a sick engine just after release could be disaster. The prototype was in fact damaged on its first flight for just this reason! On deadstick approach do not attempt to stretch the glide as probably you will stall the aeroplane. Keep the speed up. When you think the tank is nearly dry get some height so that you have time to position the model for a close landing. Being a small model it rapidly becomes difficult to see, once you let it get some way off.

Part of the fun flying a model this size is to do low fast passes, pulling into a climb and rolling as you go past the Tx. With no U/C sticking down this looks great and I am sure will reward you for the building effort.

Have fun, but watch out for that 190 in the sun!

Below, the large cowling provides plenty of space for enclosing the silencer. Small engine silencers are not too expensive and in the absence of a suitable commercial internal silencer, modifications to the engine manufacturers standard item are not out of the question.

