

Plan Feature

NACARD

by Graham Atkins

**2 channel sport model
that's as unusual as
you can get.**



The Nacard will make quite a conversation piece at the local flying field.

Back in the mid sixties when proportional radio was still a dream for most of us, and the Cox Tee Dee 010 was the hottest and most talked about motor on the market. Aeromodeller was the magazine to buy and in one issue a full sized plan of a canard for the 010 was published. One of which I built would climb at about 80° level off and float around for ages. You could fly all day on a thimble of fuel.

Nacard is as near as I can remember to the same configuration. I have intended for years to build another canard, this, after much frustration and not much information is the result. You don't have to get out the Mack truck to transport it. You can sneak it into the boot of the mini or what ever, and you can get a lot of flying from 100mls of fuel.

Building is straight forward. Anyone who has built a couple of models will have no difficulty with the Nacard.

Construction - Fore Plane

For the leading edge choose very hard balsa or spruce, I used redwood from an old door for both leading and trailing edges. Use 3mm x 6.5mm spruce for the spars, also good hard balsa for the sheeting. Don't forget the plywood dihedral braces. Weight is no problem here as I ended up using quite a lot of lead, to get

the balance correct.

I found it necessary to build in strength up the front as fence post pickets and small trees seem to leap up from nowhere to make connections with the model.

Wings

Build up wings in the traditional manner over the plan. The outer wing tips tilt up to give dihedral, whereas the centre wing section is flat. Make sure wing joiner rods fit accurately and firmly into the

wing's centre section, before completing the wing sheeting.

Fuselage

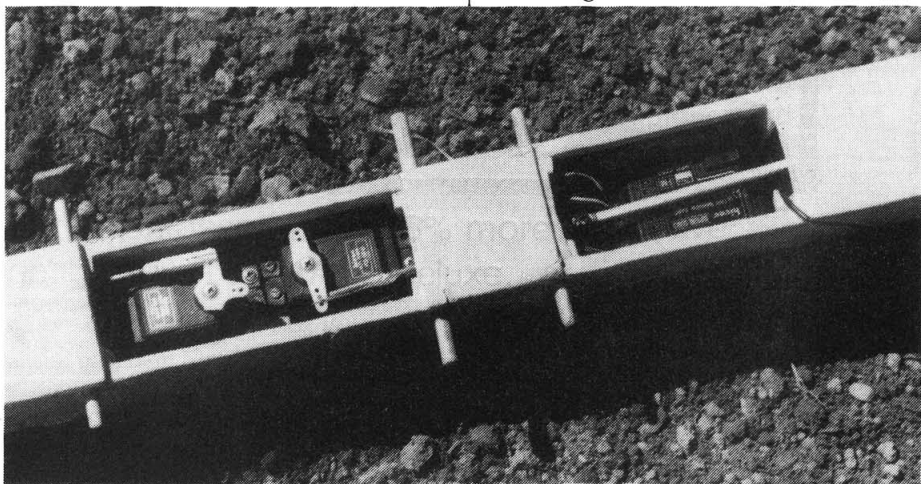
Make up the fuselage sides from 3mm balsa and add the 1.5mm plywood doublers to the inside walls. Cut out the formers from balsa sheet then assemble fuselage over plan. Then sheet the bottom and top rear end of the fuselage. Add noseblack to front and sand shape.

Cut out the fin and rudder. The fin post passes through the fuselage, then glue the top and bottom fin sections to the post and rudder to fin with hinges.

Make up the foreplane seat and glue onto the fuselage at the correct angle. Now install the servos and radio gear inside the fuselage. An extension lead is necessary for the battery which is located as far forward as possible. I use standard servos but the fitting was extremely tight. Use mini servos if you have them. If not trim a little more out of the hole in each former to fit a pushrod or nyrod through near the top. Check controls for movement before completing the fuselage with top sheeting, wing mount plates and dowels.

Engine Pod

Laminate 2 pieces of 6.5mm plywood cut to shape and streamlined. Epoxy and screw the base to pod. Make up a small fuel tank from a transparent film canister and fix onto pod with silicone sealant. **DO NOT USE ANYTHING BIGGER** for the tank as we only want a short engine run or else the thing will fly out of sight! Install engine to check for fit.



Installation of standard servos is very tight and may require insides of former to be cut out a little more to fit pushrods.

