

## Thank you for buying this Airsail product BUILDING INSTRUCTIONS FOR THE CT4 AIRTRAINER

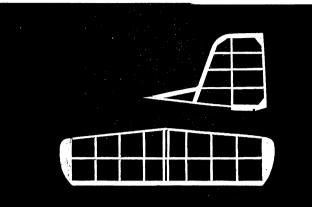
## General Instructions

Do not remove any of the die-cut parts from the panels until ready to use them as they can easily become lost or damaged. Take care in removing parts using a modelling knife to separate any items reluctant to part from their sheet. Check the fit of parts before glueing. When pinning Balsa wood strips do not pin through the wood but place pins on each side of the strip.

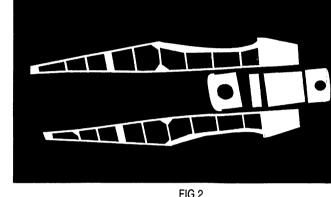
## Tail assembly

NOTE: The fin is made from 1.5mm thick balsa wood. The stabiliser is made from 2.5mm balsa wood.

Pin and glue the outline of the fin and tailplang including the tips over the plan. Add the main spar and cross pieces and leave to dry. When dry remove from the plan and sand carefully (Fig 1).

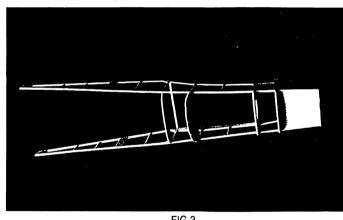


Make two fuselage sides over the plan as follows. Pin down the 2.5mm top longeron, lower front,rear longeron and wing seat. Add all the 2.5mm square spacers, sheet nose side and and the motor peg mount. Finally add the triangular gussets and tail end piece, (part rear side). Build the second fuselage side over the first carefully separating them completely when the glue is dry (See fig.2).



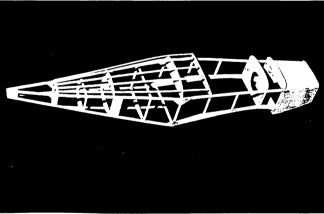
Remove the centres from the formers F1, F3 and front former. Assemble

the fuselage sides to former F1., add top nose reinforcing piece (Note: this piece ensures the correct angles of the sides), add other cross pieces and spacers at the front and rear of the wing seat,. Check that the structure is true and square(See fig.3).



Crack fuselage sides at point A. Pull the sides together at the tail end and glue, checking checking the alignment over the top view of the plan.Add remaining cross pieces and gussets etc,top and bottom before fitting formers to the rear of the fuselage.

Identify and fit rear formers F4 to F11 top and bottom. Add the rear top stringers starting with the centre one and the lower keel stringer (Fig.4)

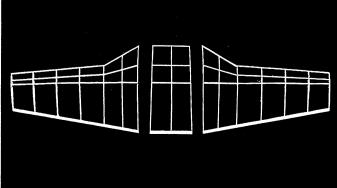


Fit tube to nose leg wire before bending to shape detailed on plan. Fix the nose leg in place on bottom nose with part LG Pad. Fit bottom nose assembly to fuselage (between the sides).

Cut art paper covering to cover between F2 and F3. Cement in place. Trim the plastic nose cowl to fit over front former (Note side thrust on the top view), and cut the hole for the plastic nose bearing. Trim the plastic lower cover, cutting a hole where marked for the front undercarriage leg. Check the fit of the lower cowl then cement in place. Check the fit of the nose cowling and cement in place.

Carefully trim the cockpit canopy moulding. NOTE: the canopy moulding includes the top fuselage cover ahead of the windscreen. DO NOT separate. Cut front and rear ends from moulding and fit to fuselage but do not glue in place at this stage. (This operation is carried out when the model has been assembled and covered).

The wings are built in three separate sections; the centre section and two outer wing panels (Fig5).



# Pin the trailing edge and lower spar over the plan. Fit ribs in place using a

square to ensure the two outer ribs are correctly aligned. Fit top spars and leading edge. Remove assembly from plan when dry.

### Outer Wing Panels

Pin down trailing edges and spars as for the centre section and fit all ribs except W1. Fit top spars. Identify dihedral brace, and glue to the front of the spars between W2 and the end rib W1. (NOTE the longest side of the brace must be at the bottom - see Sketch B). Fit rib W1 glueing it angled against the dihedral brace. Finally add leading edge after sanding nose of ribs to suit. When dry remove the wings from the plan. Sand the wing assemblies smooth, rounding the leading edges and tapering the trailing edges.

Glue the wing assemblies together as shown in sketches C & D. NOTE: the tops of the ribs on the centre section CSR, and outer wing panels W1 must be flush; Wing tips should be 30mm off the building board (Sketch C). Form the two main undercarriage legs over the pattern on the plan and bind in position on parts LG brace. Be sure to assemble one right hand and one left hand item. Fix to the spars in the position shown in the plan.

Fit wing tip blocks sanding and shaping to their correct profile (See

## Covering and finishing

All the components are covered before the model is assembled. The model is given two thin coats of dope or sanding sealer and lightly sanded before starting to cover. The tissue is cut slightly oversized. Cover the top and bottom of the rear fuselage first, then the fuselage sides. DO NOT cover the top forward fuselage. Cover the bottom outer wing panels first and then the top followed by the tailplane. DO NOT cover the centre wing section.

Assemble the tail surfaces to the fuselage by firstly glueing the tailplane then the fin to the rear fuselage mount. Check that all surfaces are true and square. Set aside to dry before continuing.

Check the fit of the wing centre section to the fuselage. When satisfied, glue in place and cover the bottom of the centre section.

Give the model two coats of thinned weak dope (60% dope/40% thinners). To improve the appearance 6mm wide tissue strips can be doped over the joints (wing to fuselage etc).

Check again the fit of the canopy and when satisfied carefully glue the canopy in place. Use 6mm strips of tissue to seal the edges. Fit undercarriage fairings by binding the fairing to the wire with tissue strips.

## Finishing

The model can be finished to your own satisfaction but be aware that painting will add a lot of weight if it is not done with care. The best results require an airbrush but careful application of paint with a brush can produce a nice result but only a thin coat should be used.

Coloured tissue is also a good alternative to coloured dope or enamel.

Apply the decals by soaking in water and sliding them into place when free.

Fit the wheels of your choice. If you wish to have scale-like wheels separate the vacuformed halves from the sheet and assemble with an aluminium or plastic tube hub bearing. Paint and place on the axle retaining with a small

section of plastic or a blob of glue on the end. Make up the propellor assembly as shown on the plan and fit the rubber motor.A balanced propellor prevents vibration and will result in better

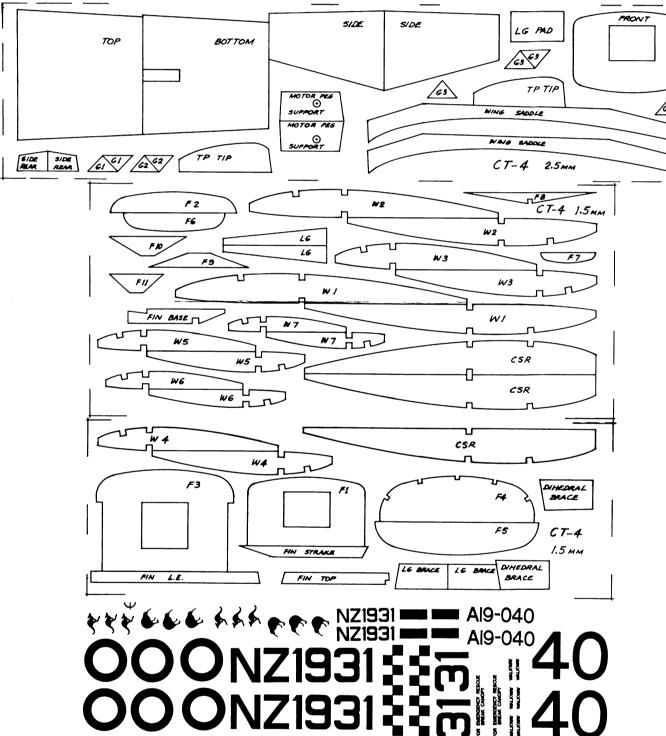
flights. To balance the propellor, fit the prop shaft and note if a blade always hangs down. If so, scrape or file the rear face of the heavy prop blade until the propellor remains horizontal at rest.

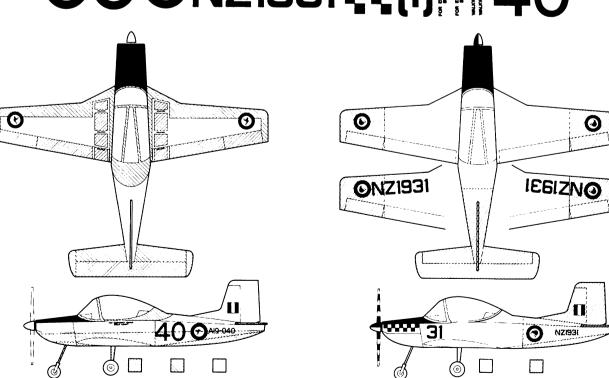
Check the model balances correctly, adding weight to the nose if it is tail heavy. This is MOST important if the model is to fly properly.

Wind the propellor for 50 turns. Hold the model by the propellor and the fuselage just behind the wing, and facing into the wind launch the model with a gentle push after releasing the propellor. This should be done when the wind is less than 5kph. If the model rears up and stalls, bend the elevator down a little. If it dives into the ground, bend the elevator up. A paper tab can be fitted to the trailing edge of the tailplane for this purpose. Gradually increase the number of motor turns to 250, trimming as neces-

sary with the power increase. Make all adjustments a little at a time, observing closely the changes in flight that take place after each adjustment. The model should climb and glide to the left in wide turns.

NOTE: This model can be converted to use CO2 or small electric motors as motive power.







Designed by B. Borland

Drawn by B Crocker



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