

## ***Post-Paint>Wings>Fit wings***

### **Objectives of this task:**

To final fit the wings to the fuselage. This is a repeat of the *Pre-Paint* task but because you have already pre-fitted the wings they can now be fitted into place more easily. This task will discuss the fitting of one wing at a time.

In our factory we use 3 people for this task, so ask 2 friends over to help you.

Do **not** try to do this task with less than 3 people or you risk dropping the wing.

### **Preparation**

Place 2 trestles beside the fuselage and lay the wings on them.

Fit the bottom of the strut to the lower fuselage mount and secure with an AN175-15A bolt inserted from the front and an AN960-516 washer MS20365-528 nut. Rest the outboard end of the strut against a saw stool as shown at right.

Lay the AN4-14A wing attach bolts and some AN960-416 washers on top of the fuselage where you can easily reach them.



### **Fit the wing**

One person holds the outboard end of the wing while the other 2 hold the front and back of the wing root as shown in the photo above.

Carefully walk the wing in to the fuselage, feeding the aileron cables through the fuselage holes and feeding the fuel lines, stall warning tube and any electrical wiring, and guide the wing attach lugs on the wing into the aluminium wing attach brackets on the fuselage.

The fit between the wing attach lugs on the wing into the aluminium wing attach brackets will be tight and it may take some careful positioning of the wing to get them to fit – the outboard end of the wing may need to be moved forward or backwards to get the correct alignment.

Each AN4-14A wing attach bolt should be fitted with one AN960-416 washer under the head of the bolt and one AN960-416 washer under the nut.

**IT WILL BE NECESSARY TO GENTLY TAP THE AN4-14A BOLTS INTO PLACE – TAP IN UNTIL THE HEAD OF THE BOLT IS SEATED HARD AGAINST THE ALUMINIUM WING ATTACH BRACKET AND THEN PUT AN AN960-416 WASHER AND A MS20365-428 NUT AND TIGHTEN UP UNTIL THE NUT IS IN SAFETY: THERE SHOULD BE AT LEAST 1½ THREADS SHOWING THROUGH THE NUT BUT NOT MORE THAN 3 THREADS SHOWING.**

DO NOT OVERTIGHTEN THESE BOLTS. They should be just tight enough to prevent rotation. Over tightening may result in failure of the wing attach lugs.

### **Fit the strut**

When both wing attach bolts are in place, lift the strut up to the underside of the wing and fit



the strut to the wing with an AN175-15A bolt inserted from the front and an AN960-516 washer MS20365-528 nut and tighten up until the nut is in safety: there should be at least 1½ threads showing through the nut but not more than 3 threads showing.

DO NOT OVERTIGHTEN THESE BOLTS. They should be just tight enough to prevent rotation. Over tightening may result in failure of the strut attach lugs.

Repeat the fitting process for the other wing.

### **Fit the stall warning horn**

Trim the stall warning tube to length and fit the stall warning horn to the end of the tube.

Hold the stall warning horn to the cabin upholstery with Velcro strips.

Test by sucking on the stall warning in the leading edge of the wing until you hear the horn.

**THIS COMPLETES THE *POST-PAINT>WINGS>FIT WINGS* TASK.**