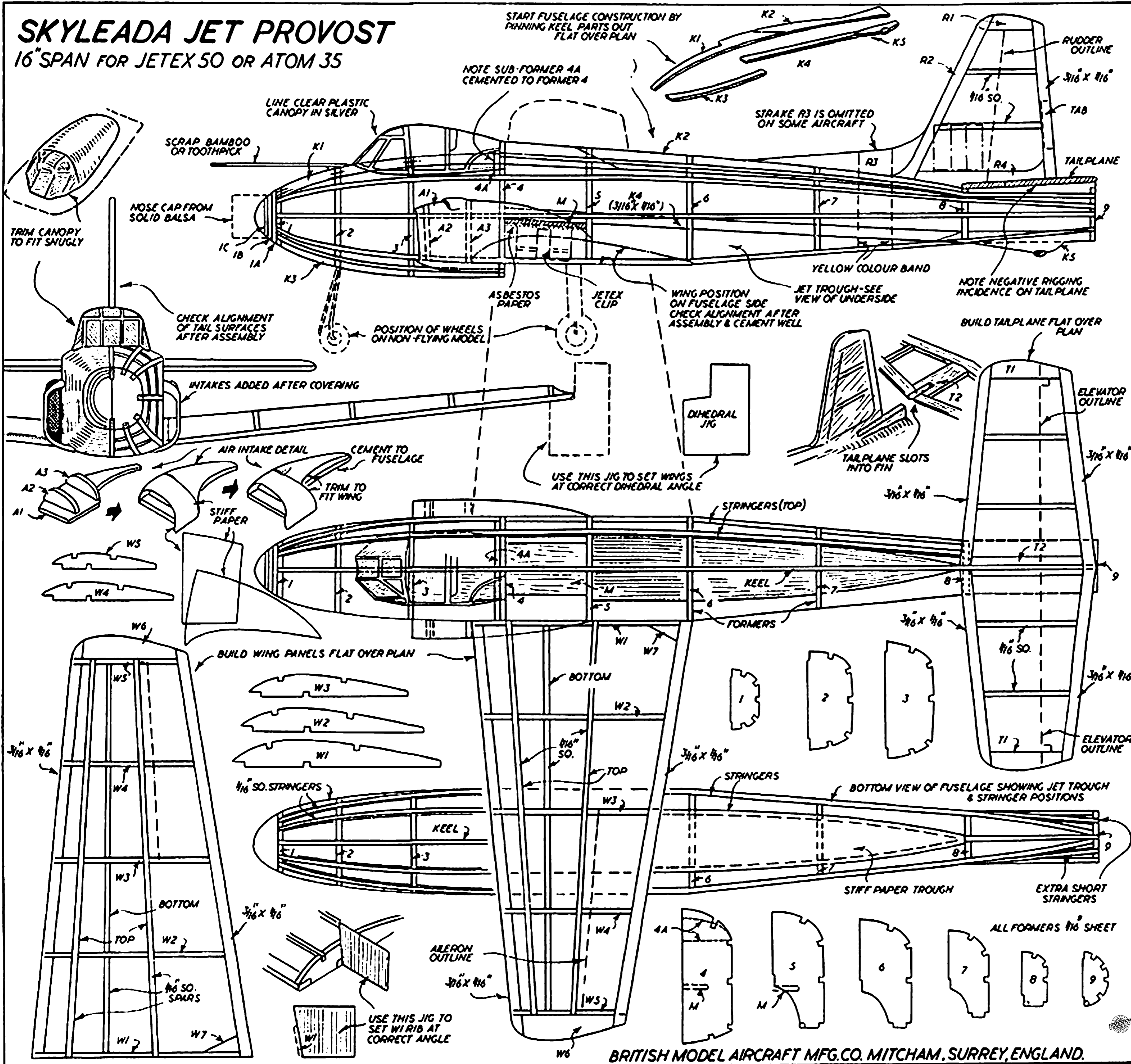


SKYLEADA JET PROVOST

16" SPAN FOR JETEX 50 OR ATOM 35



BUILDING INSTRUCTIONS

The Jet Provost is an all-purpose trainer on which future R.A.F. pilots start their flight training and carry right through until ready for advanced flight training on types like the Hercules II. It is not designed for high performance but rather for safe handling characteristics, or important for initial training. Yet its top speed of 213 m.p.h. makes it nearly twice as fast as its piston-engined counterpart, the Provost T.J. The Jet Provost is also fully automatic and can be flown inverted. Due to its inherent good stability, it makes an excellent prototype for a flying scale model.

First study the plan carefully and read right through these instructions before attempting to start building. The major components are built flat over the plan. It is therefore necessary to pin the plan out on a suitable building board, 18" x 18" in size, for use as a guide. Cover the board with a sheet of waxed paper to prevent parts sticking to the plan. Always wrap, rub over the plan with a cushion.

It is suggested that you cut out all the printed sheet parts, using them every carefully in a line or an average width required. Cut just outside the printed outline. Each part can then be measured down to an exact fit by reference to the plan. This is especially important in the case of a wing that is cut out to fit exactly to the printed plan. If you are unfortunate enough to break or ruin one of the printed sheet parts, you can easily make a new one of the correct shape from scrap balsa. A full size drawing of each part will be found on the plan.

Start construction by assembling the keel parts (K1 to K5) over the side view drawing. Note that K1 is cut from a length of 1/8" x 1/16" strip. Also accurately check for fit. Cement together and pin down.

A complete set of half formers (1 to 9) is then cemented to place in the keel. Take care to erect each former truly vertical to the plan, and at the correct position. The upper sub-former (4A) should be cemented to former 4.

All the formers are marked to take 1/16" square stringers. These stringers should be added next, cementing into their respective sockets. Check that they line up accurately. If not, trim any former sockets necessary to line them up. Note that one of the top stringers (formers 6A and 7A) are not to be cemented in.

When this assembly has set, remove from the plan, turn over and add the second set of half formers. Cement on stringers, as before, to complete the basic fuselage. The jets should now be fitted. Form parts M with a piece of asbestos paper, as supplied with every Jet Provost. (Note: asbestos paper is not supplied with the kit.) Cut out the correct jet air intake shape (from your Jet Provost) to fit M and cement to the fuselage between formers 4 and 5, up against K4.

The underside of the fuselage is completed by fitting a trough of stiff paper in the recesses in formers 5, 6 and 7. Shape roughly and push the paper in place. Trim to fit and cement to the fuselage. The trough should be cemented permanently. Supply your own line to be trimmed off with the brown stringers with a razor blade.

The wings can be built next. Each panel is built separately. Pin down the 1/16" x 1/16" square spars, also the bottom 1/16" square spar. Trim to length and cement to the fuselage. The top 1/16" square spar is cemented in place, taking care to align it correctly in the required dihedral angle. Then the jet trough shape is cut out of scrap balsa, cut out and set to align with K1. The two top spars are cemented in place last, followed by W1.

The tailplane is built in a similar manner, but as one unit. Supply pin cut the entire spars, T1 and T2 (1/16" x 1/16"), cementing together properly. Then add the 1/16" square ribs and glue to set. Repeat the process for construction of the fin, but do not include the spar (R1) in the assembly.

The elevator parts can now be sandpapered ready for covering. Check all the angles, especially the leading edges and trailing edges (upper and lower). Leading edges should be rounded and trailing edges tapered over, wedge shape. With the fuselage, setting up the edges of the formers between the stringers so that the covering will clear. Prepare all the structure properly in this way for good covering will not be too hard workmanship underneath.

The tailplane and fin are each covered with a single piece of tissue on one side only. (You can cover the fin both sides, if you wish.) Two pieces of tissue are required for each wing panel, one for each surface (top and bottom). Mark the tissue to the outline only, using photographic paper as the pattern. Full instructions for tissue covering are given in the kit. Covering the fuselage is a little different. Cut the tissue up into strips about three inches wide. Apply one strip at a time, cementing to cover one surface only with one piece, and work down along the fuselage from one end to the other. Again pull fairly tight and eliminate all wrinkles. About six strips of tissue give you a neat covering job, but do not over-tighten. Keep off the tissue if you cannot get a good fit. The covered components should now be cemented to the fuselage. Alternatively, you can paint on water with a very fine brush, taking care not to press on wet tissue. This treatment is rather tedious, however, for the light tailplane and fin structure. Tissue covered components can be cemented by holding in position during the spirit of a strongly heating lamp.

When the watered covering has dried again it should have pulled up quite tight. The tissue is still too weak to handle readily, however, so give each component a coat of clear matt dope to strengthen.

It is possible to make a flying model, but it is not recommended. The fuselage, banking the fin in a steep climb. The tailplane remains like the kit between R1 and R2. Note that a must be cemented in place with accurate alignment, based up with the dotted line on K1. The tailplane must be square with the fin.

The wings are cemented to each side of the fuselage in the position shown on the plan. Cut two dihedral jigs so that with the fuselage resting on a flat surface, placing a jig under each wing to raise the wings to their correct dihedral. The rear rib (R1) should then be pushed against the fuselage sides. Be sure to get the same dihedral on both wings, and also check that the wings have the same incidence.

The elevator can now be added to the fuselage. There are made up, as shown in the detail sketches. Cement A1 and A2 to A1 (one right hand, one left hand) and cement with masking tape. Now cover with a piece of stiff paper, using cement to fit. The paper is then cemented over fully so that the whole will fit snugly against the fuselage in the position shown and also fit exactly into the wing. Cement in place when you have got a good fit.

The plane canopy must be cemented down to fit on top of the fuselage. When properly marked, mark around the outline of the canopy with a soft pencil. This area on the fuselage should then be painted black or light green before cementing the canopy in place. Also before the canopy is added, complete the shaping of the model.

For a flying model, a second coat of clear dope to fuselage and wings will suffice. The full size drawings are enclosed above all over, with a yellow band around the fuselage, as indicated on the plan. You can silver dope the model, but this will add weight for a good flying model. With a non-flying model, of course, it does not matter how many coats of dope you use to get a good finish.

FLYING INSTRUCTIONS

With an enclosed Jet Provost mounted to the fuselage the model should balance level when supported under the bottom wing member. If the balance is fairly near to this, then you can probably trim out for good flying by adjusting the tailplane incidence slightly. If built on, however, you must adjust the incidence in the form of making the fin to rise or the rear or tail to correct.

Try hand gliding the model over long grass. If it comes down into a steep glide, set every the tailplane and rearward with slightly more negative incidence. If you are using nose balance, remove this block. If the model stills, add weight to the nose.

Trim for a smooth, flat glide, without a turn. Correct any tendency to turn by warping the rudder slightly in the opposite direction. If the turn persists, check that you have got the wings level up accurately, also whether the wings or tailplane are warped. Correct as necessary.

This model can be flown inverted and is a very wide glide. Due to the faster flying speed, however, turn effects will show up more strongly. A sharp turn under power will almost always result in the model ending up in a spiral dive.

To get the best results from your Jet Provost, always keep them in a line on your patch. To avoid them from being on the ground where they can get damaged, also, always check the jets are thoroughly dry the jet section after every flight and the whole unit after a dry flying. Remember, too, that rain weather is best for flying—and long grass the best kind of landing surface.