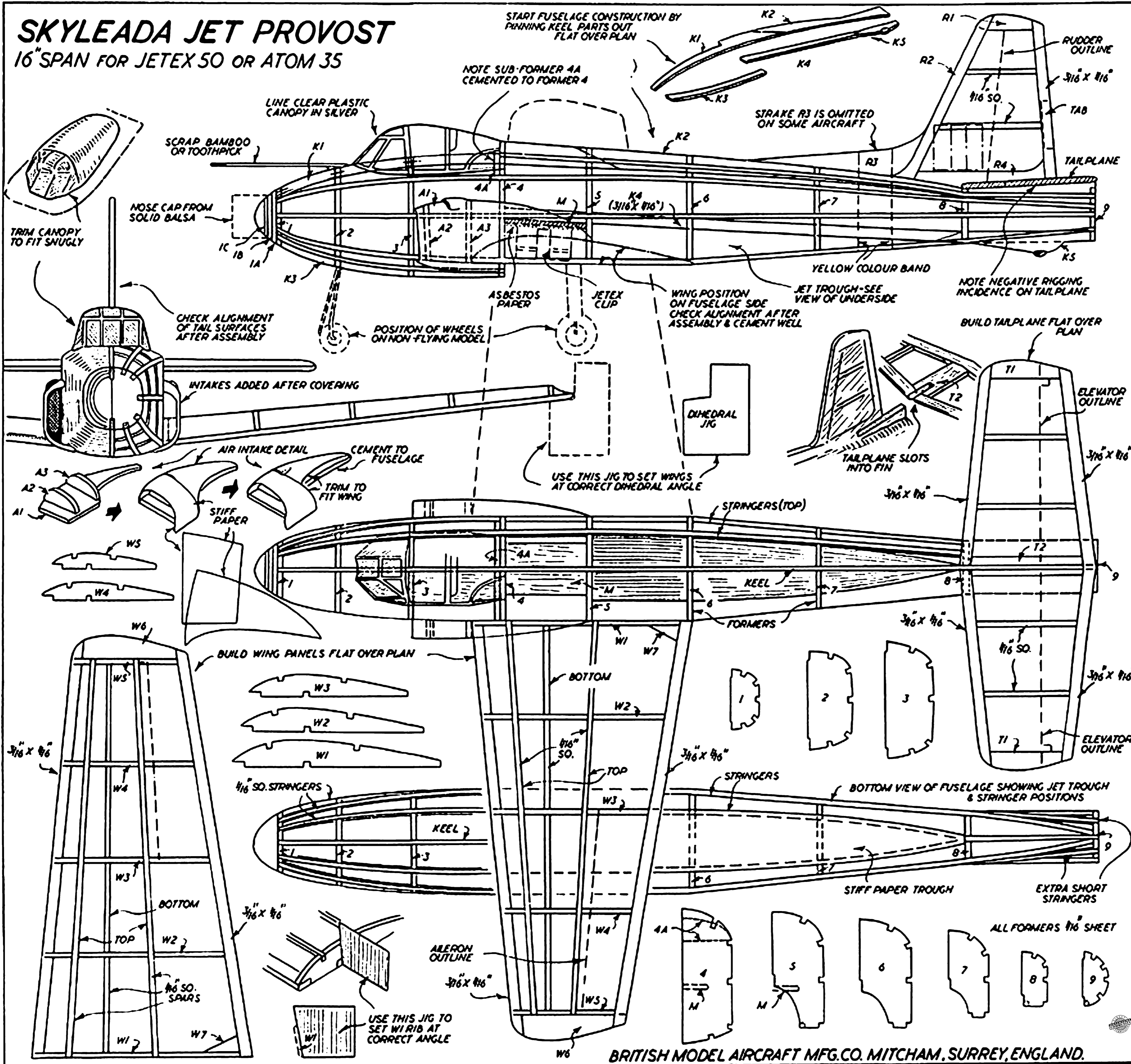


SKYLEADA JET PROVOST

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 flying instruction 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 233 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, which is flat and free from warping. Cover the drawing with a sheet of waxed paper to prevent parts sticking to the plan. Always strip, rub over the plan with a eraser.

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 most important. In the event of a wrong line being cut, do not cut into the printed line. If you are unfortunate enough to break or run over 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 1/4" x 1/8" 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.

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 and S with a piece of asbestos paper, as supplied with every Jetex unit. (Note: asbestos paper is not recommended for use in the construction of the model. Jetex clip (given found in your Jetex model) to 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. Cover the trough with a piece of paper. Supply jetex clip can then be trimmed off flush with the fuselage stringers with a razor blade.

The wings can be built next. Each panel is built separately. Pin down the 1/16" x 1/16" balsa strips, also the bottom 1/16" square strip. Trim to length and width. The top 1/16" x 1/16" strip is cemented to the fuselage, taking care to align it correctly with the fuselage stringers. Then the 1/16" x 1/16" strips are cemented to the fuselage, one on each side to align with K1. The two top strips are cemented in place last, followed by W7.

The tailplane is built in a similar manner, but as one unit. Supply pin out the outline on the plan (T1 and T2), 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 struts (R3) in the assembly.

The elevator parts can now be sandpapered down ready for covering. Clean off any black carbon particles and use sandpaper to smooth down all edges, etc. Leading edges should be rounded and trailing edges tapered over, wedge shape. With the fuselage, strip away 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 hide but 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 responsibility must be taken for tissue wrinkling. Covering the fin is a little more difficult. Cut the tissue up into strips about three inches wide. Apply one strip at a time, aiming to cover one stringer space 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 strengthened by tacking the balsa. Alternatively, you can paint an outer 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 painted by holding an even stream from the spray of a spray-painting bottle.

When the covered 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 recommended that the fuselage, banking the fin in a slightly raised position. The tailplane remains like the fin 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 tip causes the wings to clear correct dihedral. The rear rib (R1) should then be built against the fuselage sides. Be sure to get the same dihedral on each wing, and also check that the wings have the same incidence.

The air intakes can now be added to the fuselage. These are made up, as shown in the detail sketches. Cement A3 and A2 to A1 (one on right hand, one on left hand) and smooth with sandpaper. Now cover with a piece of stiff paper, using cement to fit. The paper is then cemented carefully so that the intake will fit snugly against the fuselage in the position shown and also fit snugly 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 Jetex motor 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 it up or down the rear or up or down.

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, but it is not recommended for a very wide climb. 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 Jetex engine, always keep them in a low rpm range. To run them down from around the ground where they can get damp. Also, always clean the jets out thoroughly—the jet nozzle after every flight and the valve unit after a dry flying. Remember, too, that rain weather is best for flying—and long grass the best kind of landing surface.

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