Skyleada

Jetex 50 Series

U.S. NAVY "CUTLASS" F7U-3

Designed as a carrier-borne fighter for the United States Navy, the Chance Vought F7U-3 "Cutlass" is reported as being an excellent machine with extremely fine handling qualities. Although no performance figures have been released for publication, the "Cutlass" is in the 650-700 m.p.h. class. Production aircraft are believed to be fitted with two Westinghouse J16 turbojets. One particularly uncommon design feature of this aeroplane is the fact that the main wheels of the tricycle undercarriage retract into the base of each fin and rudder. Wing span is 38 ft. 8 in. and length 40 ft. 10½ in.

BUILDING AND FLYING INSTRUCTIONS

Carefully cut out the various parts on the printed sheets and store them in a safe place until required. Before starting to assemble the model, cover the plan with greaseproof paper to prevent the balsa wood parts, which are built up directly on the plan from sticking to the paper.

FUSELAGE: Commence construction of the fuselage by pinning down over the plan parts marked K.1, K.2, K.3 and K.4. Thoroughly cement the joint between K.1 and K.2. Add half-formers for Port (left) side and when dry cement 1/16" sq. stringers in position. Allow to set for one hour then remove from plan and add Starboard half-formers and stringers in line with Port side. Between F.5 and F.6 cement the former F.11 to centre line, K.3 so as to form tee-section. Jetex 50 mounting clip is later cemented to F.11 in the position shown on the plan. Glue nose block in position and allow to dry thoroughly before shaping with razor blade and glass paper. From notepaper cut out the shape shown at the top left hand side of the drawing. Cement to this notepaper a piece of reinforcing sheeting supplied with the Jetex 50 kit when fit into semi-circular trough in underside of fuselage. The purpose of this paper is to prevent the hot gases from the jet unit damaging the fuselage.

Cover the fuselage with tissue strips running lengthwise using a tissue or other paste for adhesion. Over most of the fuselage it will only be possible to cover the gap between two adjacent stringers with one strip of tissue, due to the double curvature. Over the top centre, however, it will be a simple matter to cover the space between two or three adjacent stringers with one strip of tissue.

After covering, water spray the whole fuselage and allow to dry naturally. On no account should any attempt be made to speed up the drying process by placing the wet model near a fire. Excess heat will overstretch the covering so that when it later returns to its normal temperature the tissue will become slack and wrinkled. When completely dry give one coat of thin clear dope. Next, trim surplus from moulded cockpit cover included in the kit and cement in position on the fuselage. The rear part of the cockpit can either be covered with tissue or colour doped so as to leave only the positions shown on the drawing forward of F.3 fully transparent.

WINGS: Pin down Ribs W.1, W.2, W.3 and W.4 so that the straight underside of each rib is flat on the building board. Slide 1/16" sq. bottom spar through ribs and cement in place. Cement W.7 and W.8 in place to form centre-section and pin down. Add gussets W.10 and W.11. Fit leading edge (cut from strip 1/16" x 3/16") then add diagonal braces from 1/16" sq. before cementing 1/16"-sq. top spar to ribs. Fit W.16 to ribs. Add gusset W.9 and wing tip W.5. Build up control surfaces by first pinning down Eleven spar W.15 and trailing edge (cut from 1/16" x 3/16"). Cement the three ribs W.12 in place then add gussets W.13 and W.14, also tip W.6.

IMPORTANT: Do NOT cover wings or control surfaces at this stage.

FINS. (TWO REQUIRED)—Pin down over plan parts marked R.1, R.2, R.3, R.4, R.5, R.6 and R.7, cementing joints carefully. Add 1/16" sq. strips forming ribs and lower brace. When dry remove from plan, tissue cover both sides, water shrink and give a final coat of thin clear dope.

ASSEMBLY: Before covering the wings cement them in position on each side of the fuselage, ensuring that the leading and trailing edges are in identical positions on both sides of the model. To assist in retaining the wings in their correct positions until the cement is hard, pins may be pushed through rib W.1 into formers F.5, F.6 and F.7. Check alignment from time to time during the drying period as balsa cement has a tendency to pull components out of place as it dries. Note there is slight dihedral on the wings (i.e., wings rise towards the tips), the correct angle of which is obtained by using a template cut to the shape shown on plan. It is particularly important that this dihedral angle be the same on both sides of the model. See front view on plan.

When finally set wings may be tissue covered water shrunk and clear doped.

Next cement fins in place on Rib W.2, taking care that these fins are fitted upright and parallel with the centre line of aircraft. After covering and doping, cement elevons to the wings so that the trailing edges of the elevons are raised approximately 5/32" above the wing centre section trailing edges.

When the model is completed, carefully check that it balances at the point shown on the plan. This test must be carried out with the UNLOADED Jetex 50 fitted with its clip in the appropriate position. If the model's point of balance is more than 1/8" either side of the indicated position, add a small quantity of plasticine to the nose or tail, as required, until it balances correctly.

Test gliding should be carried out in calm weather, and, if at all possible, over fairly long grass. Launch model from shoulder height directly into wind (if any), nose pointing slightly towards the ground. If the model dives steeply, gently bend up the elevons a little more than the 5/32" mentioned above and repeat launching procedure. Should the model climb, poise in the air and then dive, gently bend the elevons down a little so as to reduce slightly the amount of "tip-up" of the control surfaces. During trimming, all adjustments should be carried out a little at a time, until a smooth, flat glide is obtained.

It is important to remember that hand launching does not necessarily give a completely true indication of the model's gliding qualities, but it does, however, serve as a guide until the model has attained sufficient height under power to enable it to settle down in its own natural glide. Before attempting power flight, read carefully the instructions supplied with the Jetex 50 unit.