Glue on the top fuselage sheeting and draw the centerline on this sheeting. Cut a square hole in this sheeting for the pylon's post and the holes for the Nyrod tubes for the throttle and antenna. On the inside of the fuselage, glue a small plywood block to the top sheeting behind F5 for the screw holding the radio compartment hatch in place. Slide the throttle NyRod into the hole in this sheeting and into the holes in the fuselage formers, then slide the fin's post into the square hole. Be certain to check for proper alignment and, once satisfied, glue the fin to the top fuselage sheeting and to the former F9. At the bottom of the fuselage, glue in the landing gear blocks. Inside the fuselage between formers F7 and F8, glue in small hardwood blocks to hold the "L" shape metal bracket that holds the wing halves to the fuselage. Drill vertical holes for the 5/32" landing gear piano wire.

Glue on the bottom fuselage sheeting. At the fuselage step, glue a 1/8" x 1/2" plywood strip to strengthen the step's edge. Glue on the nose cone block.

Sand the fuselage, then cut out the radio compartment hatch. At the rear of the hatch, glue in a plywood block. Two screws will hold a metal landing gear clip to secure the hatch in place. A 1/8" dowel is glued into the front former of the hatch. On the bottom of the fuselage, glue on the sub-fin.

Cut the rudder out of 1/4" balsa sheet. To match the thickness of the rudder and the thickness of the pylon, glue 3/8" balsa sheets on both sides of the rudder above the wing. The lower portion of the rudder below the wing remains 1/4" thick to match the thickness of the sub-fin under the fuselage. Sand the rudder to a taper.

For aesthetics I added leading edge extensions (lex) to the wing's halves. This is optional, but if you wish to add them, cut out all the pieces for the leading edge extensions. Plug the wing into the fuselage with food wrap in-between to protect the fuselage. Glue the lex ribs to the wing, followed by the lex spine and then the top and bottom lex sheeting. When done, remove the wings.

Cut out the elevons from 3/8" thick balsa sheet and sand them as shown on the fuselage drawing.

The model is now ready for covering. I covered the prototype using iron-on plastic film. To make certain that water does not soak the raw balsa, I brushed on one coat of Balsarite adhesive. After the adhesive is dry, sand the model using 150-grit sandpaper and cover the model. Take care to be sure that there are no openings at seams that allow water to get between the covering material and the balsa. When you are finished covering, install the elevons. The slots for these hinges must be made where the balsa blocks were glued to the trailing edge. Install the rudder, then install and connect all pushrods. Install the engine. Mount the servos inside the radio compartment in a location that will help make the model balance within the C.G. range shown on the drawing. C.G. balancing is done with the fuel tank empty. If the model is tail heavy, the receiver battery can go all the way to the nose.

Check all the controls. The deflections of the control surfaces are such that when moving the elevator stick, the elevons move 5/8" up and down (measured at the root of the wing). When moving the ailerons stick, the elevons move 3/8" up and down from the same reference point. The rudder should move 1" left and right. To secure the wing to the fuse-lage, make two "L" shape brackets. Be certain that this bracket is made from 1/32" thick aluminum or steel. Bend these strips to a 90 degree angle as indicated on the plans and drill two holes. These brackets will hold the wing to the fuselage using two screws. One screw will hold the bracket to the fuselage and the other to the wing.

Flying

The model is easy to fly. Just point it into the wind and apply power. On your first flight, let the model pick up extra speed before rotating. Gain altitude while keeping your eye on the model at all times. If you are not used to flying a delta wing model, please be aware that because of its un-conventional shape, inattention may cause disorientation in your early flights. The model will roll, loop, fly inverted, and can be flown in very tight circles. Landings are as straightforward as those of a well-behaved conventional model. The extreme slow speed qualities of the Arrow can be explored by following this procedure. At a safe altitude, slowly reduce the power. At the same time, start raising the nose using elevator input. At some point, the model will begin to sink (mush) straight down. By increasing the power slightly, the model will travel forward at very low speed. I enjoy using this flight mode while conducting my approach to landing. For flying from a firm surface, install landing gear. The model can be flown without the landing gear when flown from grass, and you must remove the landing gear when flying from the water.

This is a unique, versatile, and compact model that I hope you will enjoy.