The substructure needs to be fuel proofed before it is permanently installed into the fuselage, using a fuel proof paint that matches your color scheme, paint all wood surfaces. Alternately, mixing rubbing alcohol with Epoxy can be used if you wish to preserve the nature wood look of the formers.

Step 23i.

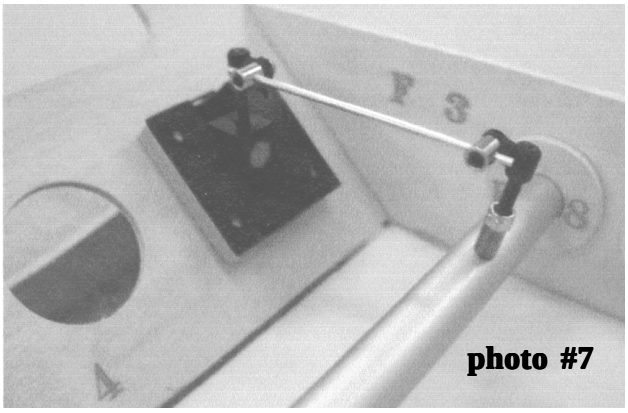

photo #7

From Step 23a, install the retract mechanism and the servo into the F4 former (photo #7), note that the pushrod from the servo to the retract mechanism will be located below the F4 former. Hardware is not provided for this connection, but can be assembled similar to this example. Install two threaded steel balls with hex nuts onto the Retract actuating pushrod and to the servo horn. Install the steel ball at a distance of 10mm from the center of the servo. Make up a pushrod that is 37-40mm from center to center on the links. To install the pushrod, temporarily connect the retract servo to the aileron channel, with the radio turned on and the aileron trim centered. Push the servo arm onto the servo with the ball at 90 degrees to the length of the servo. Adjust the length of the pushrod until the output leg (on top) of the retract mechanism is at maximum travel of the mechanism, this is close to a 10 degree offset position from vertical. Remove the pre-installed pushrod and slide the axle into position with the pushrod mounting location on the right side. Attach the two easy connectors provided to the retract leg. Using threadlock on the steel hex nut, secure the leg on the axle so that the plastic connectors are on the left side. Stop here, final adjustments will be made after the sponsons are in place.

Section Three: Main Fuselage Preparation

Step 24.

Start by thoroughly cleaning the main fiberglass fuselage, tail, tail fin, side door, dome, sponsons, top and front sections with mild detergent and water. Let dry and wipe all fiberglass surfaces with acetone.

Step 25.

Test fit the horizontal fin to the top of the elevated tail section, some sanding may be necessary to get a perfect fit with the fin overlapping the boss on the fuselage. Using Stabilit or Epoxy bond the horizontal fin in place using tape to keep the fin square to the tail (90 degrees). Once completely dry, using additional Stabilit or Epoxy (mixed with Micro-balloons), fill the seam to blend the horizontal fin to the tail section.

Step 26.

The two sponsons that house the retractable landing gear require preparation before painting. Using a large marker, coat the entire surface of the boss on the sponson that will be bonded to the side of the fuselage. Make a print of the airfoil shaped surface, on thick paper or card stock . Mark the left and right sponson letters on the back of each template. To make this a functional template, use a compass or a circle template and draw a second circle on the outside of the axle hole that has a 3mm (1/8") larger radius. This will be obvious when you trim the template to be an exact match to the sponson. Cut both the inside axle hole and the outside edge. Continue to cut from the paper and trim until you have an exact match to the airfoil section. Starting on the right side of the fuselage, as detailed in the full size plans, draw a pencil line that extends along the bottom of the small rectangular window (just forward of the axle hole on the fuselage side) to just past the trailing edge of the paper template (as mounted over the hole for the retract axle). Remove the axle pushrod and slide the axle in place through the fiberglass main section and center using tape to secure the axle from the inside. Slide the templates onto the axle. Starting with the right side, match the template angle to the full size plan. Once satisfied, hold the template in place with tape. Measure from the leading and trailing edge of the template to the pencil line and transfer these measurements to the left side of the fuselage. This will match the angle of the sponson boss. Now tape the left template in place.