Inboard Nacelle Pattern

Cut from 1 ½ thick Extruded foam. Make two

Center Nacelle Pattern

Cut from 1 ½ thick Extruded foam. Make two

save paper and the cost to you for printing the segment patterns have been drawn in halves. To make a full pattern either photo copy or cut the patterns from the plans. Apply spray adhesive to the pattern and attach it to card stock material. Fold the card stock at the pattern center line. Cut through the pattern and the card stock with a hobby knife or scissors, when unfolded the pattern is ready to use.

Use the segment patterns to mark the foam and.
Outboard Nacelle Pattern

Cut from 1 1/2 thick Extruded foam. Make two.
Great Planes fiber hinge Material
P/N GPMQ 3960
Aileron servo
The connector for when the servo
Cover this hole.
Servo wires are installed in the spar groove before the spar is installed. The servo connector is stored in this cut out space while the wing is being sheeted. When the servo is installed it is used to store the connectors and extra servo wire. The cut-out hole is sealed with masking tape to keep the sheeting glue out of the compartment.
6. Cut along the dotted line on the bottom of the wing.
7. Put the wing in place.

Note the notch on the bottom.
Repeat steps 6 and 7 on the other side.
1. Hot wire cut the beaded foam wing core.

2. With the top of the wing cores on the work surface, block sand the panel edges.

3. Bond the core roots to each other with epoxy.

4. Use a rotary tool to cut the slot for the spar and groove for motor wiring. Note the wire to store aileron servo wire.

5. Push the aileron servo wire to the bottom of the spar slot and bond the spar and spar joiner pieces to the groove and fill the groove with strips of scrap foam. Coil the extra aileron wire and put it in the grooves filler flush to the bottom of the wing if needed.

6. Cut a 3mm extruded foam sheet to fit the wing panel. Splices are OK if you use tape to hold it together during bonding.

7. Leave the beaded foam from soaking up the fiberglass resin used later. Apply polyurethane glue to the sheeting evenly with a brush, fitting in the scrap wing bed for support, position the sheeting in place on the wing core and use the wing bed to apply even pressure on the edges.

8. Finish etches in the wing bed to clear the exposed wires.

9. Proceed to steps 6 & 7 for the remaining 3 wing panels.
Use the segment patterns to mark the foam and cut the block with a scroll or band saw.

Use a square to mark the center line on every segment for alignment between each. Segments A4 to A6 will require two water line (horizontal) marks for proper alignment.

Panel roots 90 degrees to the work surface.

The wider space at the end of the spar slot used for the plate in place. Install the motor wiring in the wire compartment. Sand the spar and foam leading. The sheeting is used as a barrier preventing with a playing card that has had notches cut in it. Apply even pressure to the sheeting.
Because the segments of the fuselage taper, they are marked to prevent misassembly. This helps avoid mistakes in assembly and insures that the assembled parts are correct. Segments will keep you out of trouble.

1. Mark the foam block with the outside trim line.
2. Cut the part out and use the pattern to mark the inside trim.
3. When you assemble the segments, Aft part number 7...
The part numbers start at the widest point at the middle and get higher toward the end. This ensures a constant skin thickness of 3/4 inch. Following a few rules while cutting the trim line only. This side gets the part number.

Mark the inside trim line on the other side.

Part numbers face forward, forward part numbers face aft.
Power requirements: 70 to 90 watts per pound. The E-flite 950 Kv motor will produce 619 watts using a 10 amp power pack. If you use a four cell pack you can expect 710 watts using a 12 amp power pack.

- This hole in the fuselage foam is lined with a plastic tube or rolled paper.
- Pine block used to correct the bolt head contact angle.
- Extruded foam sheeting.
Use the fin patterns to cut the vertical fin. Add the balsa hinge gap and hinge material for the rudder. Cut the tip from the fin at the location on the side view. Cut a hole in the fin using the vertical stabilizer root pattern. Bond the fin to the fuselage then bond the stabilizer to the fin. Note: if the rudder is not installed the slot in the fin can be opened a bit to ease installation of the stabilizer. Use the side and top view pattern to cut a foam block for the front. Mark the block using the fin as a pattern and sand to match. Bond the block in place and complete the sanding task.
Fin foam blank cut from 1.5" material

Front of the fin.

2°

Elevator cable exit point both sides
1. Bond the firewall mount to the foam nacelle with epoxy. Bond the motor mount doubler to the back of the firewall with epoxy.

2. Lay the firewall facing up on a flat surface with the cowl ring centered. Apply epoxy or silicone to the inside edge of the cowl. Push the cowl over the cowl ring until it contacts the work surface. Allow the adhesive to dry or cure completely.

3. Mount the motor to the firewall then mount the firewall to the mount with two screws in the mid position. Check your thrust angles and adjust as needed.

4. Install the last four screws leaving a gap under the screws. Install the cowl ring by engaging the key holes with the screws. Rotate the cowl then tighten the screws.

NOTE: Do not operate the motor at full power without all 6 screws.
See leaf 1. Apply epoxy.

Move in from all wall

Glue to bowl

Glue to edge

Bolt or

Screw all to

Remove screw heads.

Wash the screws.

Then:

All 6 screws tightened.
1. Cut the nacelle parts from the 1.5 inch foam sheet and tack bond them with (Tack bond with three drops of epoxy)

2. Attach a 4 inch disc to the front with two sided tape as a sanding guard.

3. Sand the three blocks to a cylinder shape. If a belt sander is used; use light pressure to avoid heat build up. Sand the remaining corner round to blend.

4. Pull dental floss in-between the nacelle parts to separate them, cut the center. Use the 30 min epoxy and use tape to hold the assembly together while it cure.
with the front edges flush.

3. Bend the aft nacelle to the cylinder shape.
4. Center out of the center panel and assemble with epoxy.
5. Secure with screws.
After the fuselage has its first ply of fiberglass cut the hatch from the fuselage. Note the bottom cut is started with a razor.
Sand the fuselage mating surface smooth.
Bond 1/8 balsa sheets to the fuselage and sand the balsa edges flush with the fuselage edge.
On the hatch, mark a line 3/16 inch from the cut edge and sand to the line. Bond 1/8 balsa to the back of the hatch and sand it flush.
Sand foam from the hatch bottom until it will sit flush with the fuselage top while sitting on 1/8 balsa.
Bond balsa to the hatch bottom. Sand the front of the hatch until it fits the fuselage with its balsa plate in place.
Use magnets to hold the hatch in place.
Use two hacksaw blades taped together to cut the 1/8" slot needed to install this plate.

1/16
Aircraft grade plywood wing saddle
Pine block used to correct the bolt head contact angle

Wing bolt support plate

Wing bolt thread plate

3/4" Foam scrap cut to fit the inside walls of fuselage.
You can hot wire cut and sand the root 90 degrees. With the stabilizer in place, apply epoxy to the seam to hold the weight to the balsa. Use the root tip in the control cable.
and tip patterns to make the two stab panels.

Use cut them or simply sand them to shape

Smiths free and add the hinge line balsa and balsa bump protection.

Now it is time to install the stab. Start at the root at the edge of the work surface and the tip raised 1 1/4 inch and 30 degrees to the top of the work surface.

Commonly, the root of the stab, with the bottom facing up use masking tape or pin together. Flip the stabilizer over and raise the tips 1 1/4 inch and 30 degrees from the center until the epoxy cures.
1. Use the plywood tip float center plate as a pattern to cut two for Bond one side completely and tack bond the other.
2. Use the tip float top pattern.
3. Cut to the top view float.
4. Use the tip float side pattern block sand from the line.
5. Sand the top of the float evenly will help to make in between the tack bond.
6. Dent the foam in the float.
7. Cut the foam block for the to clear the strut Bond the.
Two foam blocks bonded to the plate.

Pattern to mark the top of the float.

Float line 90 degrees to bottom of the float.

Pattern to mark the sides of the float then line to the plywood center plate.

Float to make the top round. Sanding off the corners make them the same. When finished use dental floss bonded block and the plywood plate to separate them.

The foam block where the wire float strut goes to make space for it then bond the float halves together.

For the strut cover, sand it to the airfoil shape, cut it in half, sand a groove in the mating surface and the foam to the strut wire, glass the float with three ply of 1/2 oz. cloth.

Wing pin support

Make 2 ea

1/8 light plywood
Fuselage wing saddle

1/8” lite plywood

Wing Bolt Support Plate

1/8” lite plywood
Saddle cut pattern

With the fuselage on its back and the sides 90 degrees to the work surface.
Align this pattern with the forward edge even with the back of the F-4 segment.
Mark the fuselage and cut the wing saddle. Save the removed part to make the fuselage fairing above the wing.
Top

Albatross wing core
Root Pattern

Stab Root pattern

Tip Pattern

Stab Tip pattern
1. Apply ½ ounce glass thinned 30% with denatured alcohol.
2. Lightly sand the surface to remove the ridge.
3. After it cures, apply a squeegee off excess.
4. Repeat step three until finish is suggested and is a.
glass cloth and Zap finishing resin with denatured alcohol. Apply with a brush. Once the wetting agent is dry, apply non-thinned resin to the glassed surface. Spread resin with a playing card. Wet sand imperfections. Allow the surface to become glossy. For complete instructions and tips, the book "Building with Foam" is a must for those that are new to foam construction.
Hatch separation made with 1/8 balsa
The cabin vents can be functional if you bore a hole thru the fuselage skin with a sharpened 3/8" brass tube before the plastic vent is installed. See the side view.

3/4" Foam scrap cut to fit the inside walls of the fuselage.

1/16 Aircraft grade plywood wing saddle
Notice
Thick Styrofoam sold in sheets shrinks at different rates. Sometimes as much as roughly 1/16 inch during manufacturing. The segment spacing on this drawing has not allowed for this inconsistency. This could change the total length of your model
**HU-16 Albatross**

Designed and drawn by Keith Sparks

<table>
<thead>
<tr>
<th>Model type</th>
<th>Electric powered, Radio controlled</th>
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| **Specs.**            | Span..... 76 in.  
weight ...6 lbs            | length................49 in.  
wing area...667.5 Sq. in. |
| **Construction type** | Extruded foam wood composite      |