

## **BUILD WHICH GENIE? (Sept.5, '09)**

**By Harley Michaelis**

The universal plans work for all versions. Except for the Easy LT/S which has a balsa-skinned wing and 1-piece slab sides, they are all built the same, just varying in size. There are drawings on the plans for sizes of parts needed. Construction Files #1, # 2 and #3 detail how the glassed-over fuselages, tail pieces and bagged wings are built.

Wings are built with cores, related text, drawings & pictures on the CD or web pages.

Wing core spans for the three wing sizes are 144", 130" & 120". Endcaps where Sections 1 and 2 meet add 1-1/2" to the span. Think of wings as being 12', 11' & 10' in span.

The 12' "Big Smoothie" has an area of 1,260 sq. in. Like any large area ship it's something of a handful to hang on to when launching in strong wind, but at least the fuselage can stand the grip. The recommended fuse for this wing is the longer, lower profile, glassed-over, Smooth Genie Pro fuselage. The Aug. '09 plans have the slab side profile for it and show the full size fuse and tail profile. SGP laser cut fuse kits are available at <http://www.vintagesailplaner.com/SmoothGeniePro.html>. Lower profile micro sized servos, such as the JR, are needed.

The "Big Smoothie" is the largest ship in the Genie line. The all up weight on the prototype came to 87.5 oz. compared to the typical 94-96 ounces with the original, bulkier fuselage. See the Supplemental "Big Smoothie" file for more info.

The 11 foot wing has an area of 1,123 sq. in. Used with the original, more bulky Genie fuselage made it the "Genie Pro". When used with the longer, slimmed down fuselage, it became the "Smooth Genie Pro". Several have been built, coming in at around 80 oz. all up flying weight. It still has that "big ship" feel when airborne. See the Supplemental "Smooth Genie Pro" file for more information.

The Genie LT/S (light and smaller) has an area of 978. I've built them as light as 61 oz. and as heavy as 72. It does a spectacular launch under high tension with a long, fast zoom off a typical winch. The glassed-over fuselage has been lengthened using 2-piece sides shown on the Aug. '09 plans or the longer LT/S composite fuse. See the Supplemental "Genie LT/S" file for more information.

The "Easy LT/S" version has a balsa sheeted, foam core wing. The slab side pattern on the Aug. '09 plans for the LT/S is shortened at the tail end to make one-piece slab sides for the "EZ". Cores can be cut from more common, lower densities of foam. Center is constant chord. Tips are cut single taper with a couple of templates. Simple trimming and sanding after cutting, turns it into a triple taper planform. It's a low cost ship at \$200 or so including pre-cut cores. See the Supplemental "Easy LT/S" file for more information.