

Larry Renger's "Toucan"

Larry Renger, of "Foamme Fatale" fame (*RCSD* 01/93), is currently involved in three projects of interest to readers of this column.

Another of Larry's designs, "Toucan," will appear as a construction article in the August issue of *Model Airplane News*. "Toucan" is a 42" span tailless design which features forward sweep. At home on the slope, "Toucan" has a rapid roll rate, turns quickly, and looks spectacular in the air. With a symmetrical airfoil and no twist, it is just as happy inverted as upright.

"Toucan" lends itself well to a variety of construction materials and methods. The plans show the wings constructed of one pound density foam cores covered with epoxy soaked brown wrapping paper. Alternative coverings include fiberglass over paper, fiberglass and epoxy alone, and 1/64" plywood. The wing is thick enough to hold micro servos, with direct connections to control surfaces.



Fuselage cross section is minimal, and there's just enough room for a 225 mah battery pack, RCD Micro 535 receiver, and two Futaba 133 servos. A wing loading of 8 to 12 oz/ft² yields a good flying machine. For the experimentally minded, Larry suggests enlarging the "Toucan" to 1.5 size — thus making it a "Threecan." We're contemplating building a "Fourcan."

A second project is a swept forward wing for the 60" span slope racing class. The airfoil for this yet to be named wing will be the SD 8020. Larry's construction method involves cutting the cores as though there is no sweep. Once the cores are cut, the sweep angle is cut into the planform. This thickens the wing section a bit, with the SD 8020 turning out to be about 9%

thick. Plans are currently being drawn utilizing CAD, and so should be very accurate.

Larry is also working on an advanced slope soaring book to be published by *Radio Control Modeler* magazine. Included will be a section on scale soaring gliders. While power scale slope soaring is very popular in Larry's area, he has made a concerted effort to cover the truly powerless 'ships, too. We're looking forward to publication!



Larry and the Toucan on a California slope.