

VALKYRIE

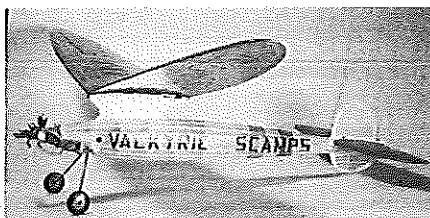
OLD TIMER Model of the Month

Designed by: Carl Goldberg/Rudy Calvo

Drawn by: Al Patterson

Text by: Rudy Calvo

- The Valkyrie, designed by Carl Goldberg, appeared in *Air Trails* in two parts, issues September and October, 1938. The theme: A high-performance gas model combining light weight and streamlining. No doubt the design was influenced by Carl's background related to indoor models. Carl, retained by the Comet Model Company, continued the

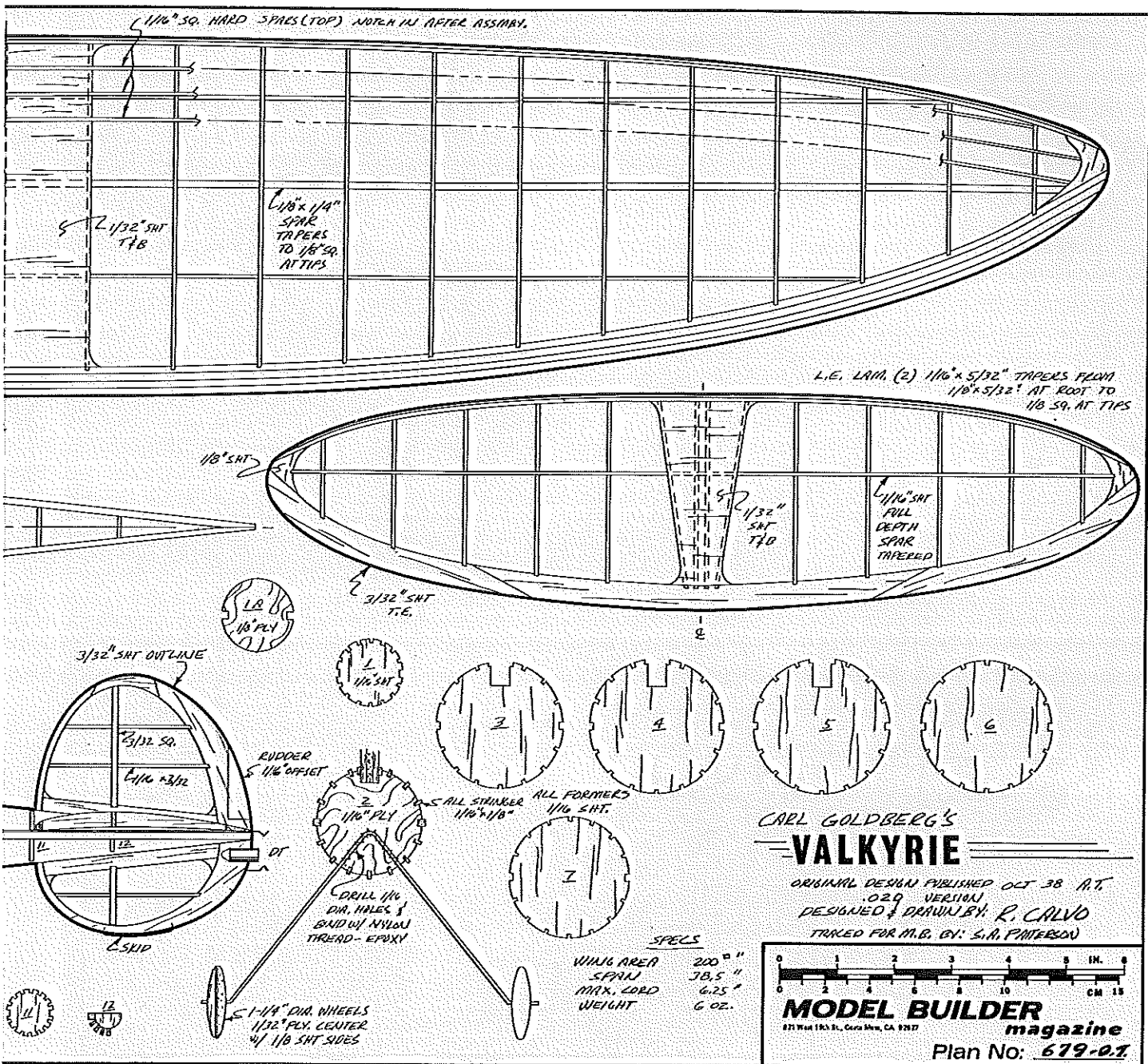


competitive spirit and designed such great models as the Zipper, Sailplane, Interceptor, Mercury, and Clipper. However, the Valkyrie, reduced in size and modified for rubber, produced by the Scientific Model Company, has remained in my thoughts since my youth. What a beautiful design!

About 8 years ago I was made aware of the SCAMPS Old Timer club through *Model Builder*. This was an article describing Cal Aero information. Any-

how, Bob Oslan was kind enough to inform me of the Old Timer movement.

Jimmy Dean had the *Air Trails* issues, and that's how it all started. I have built the Valkyrie in an .020 replica version, the subject of this article, a half-size version (60-inch span) with an Arden .199, and a full-size version, R/C, O.S. .40 (shown in *Model Builder*, April 1979 issue, at the Pasadena IMS Show). If a little extra work doesn't offend you, here's a plane you can have a lot of fun with. My plane weighed in at 6 ozs. It's a little large for .020 application, but I felt the clean aerodynamics design, minimum parasite drag, and high-lift wing would overcome the higher performance of other designs, or at least be somewhat competitive. But enough of the historical background. Let's get on with the construction.



FULL SIZE PLANS AVAILABLE — SEE PAGE 116

FUSELAGE

The fuselage is built on a 1/8 sq. crutch with 1/8 x 1/16 spacers behind each bulkhead. This method speeds construction and is similar to the concept of Gene Wallock and others. The bulkheads are solid 1/16 sheet. You may elect to hollow the formers for weight consideration. The bulkheads are 1/16 of an inch less than the finished skin, with 1/16-inch notches to receive hard 1/16 x 1/8 longerons. The landing gear bulkhead is 1/16 plywood and the complete assembly is set in place on the crutch.

The firewall is 1/8 plywood with blind nuts and is set in place complete on the crutch. The pylon is laminated sheet as noted on the plan. Wing platform is 1/16 sheet. The fuel shutoff timer is set on the right side next to the firewall, just below the 1/8 sq. crutch.

WING

The wing ribs are made from a 1/16 plywood template, full size, as noted in the profile view. The method is to rotate the template to the chord length at each station. The rest should be like typical wing construction.

TAIL SURFACES

The horizontal stabilizer uses a full-depth spar to minimize warpage. The rest is of conventional construction.

FINISHING THE MODEL

The fuselage is lightweight silk, applied wet. The wing and tail surfaces are Japanese tissue. Pre-dope the surfaces and apply the covering with acetone. I used 5 coats of 50-50 nitrate dope. The final 2 light coats are 253-00 gloss Fullerplast (sprayed). This is an industrial coating manufactured by Fuller O'Brien. It requires 283-00 Fullerplast catalyst and

then 50-50 mixing with Fuller 181-00 thinner (fast) for spraying application.

FLYING THE MODEL

The model flew right off the board! Mine required a little right thrust and up thrust with a sandpaper shim. Right rudder was also required. Your model may not require these adjustments. Tilt in the stab may be required for a right glide pattern. My plane flies right-right. The power pattern, considering the size, is a reasonably fast, tight right spiral, then watch the glide! This has been a most enjoyable experience... and still is! And that's what it's all about.

