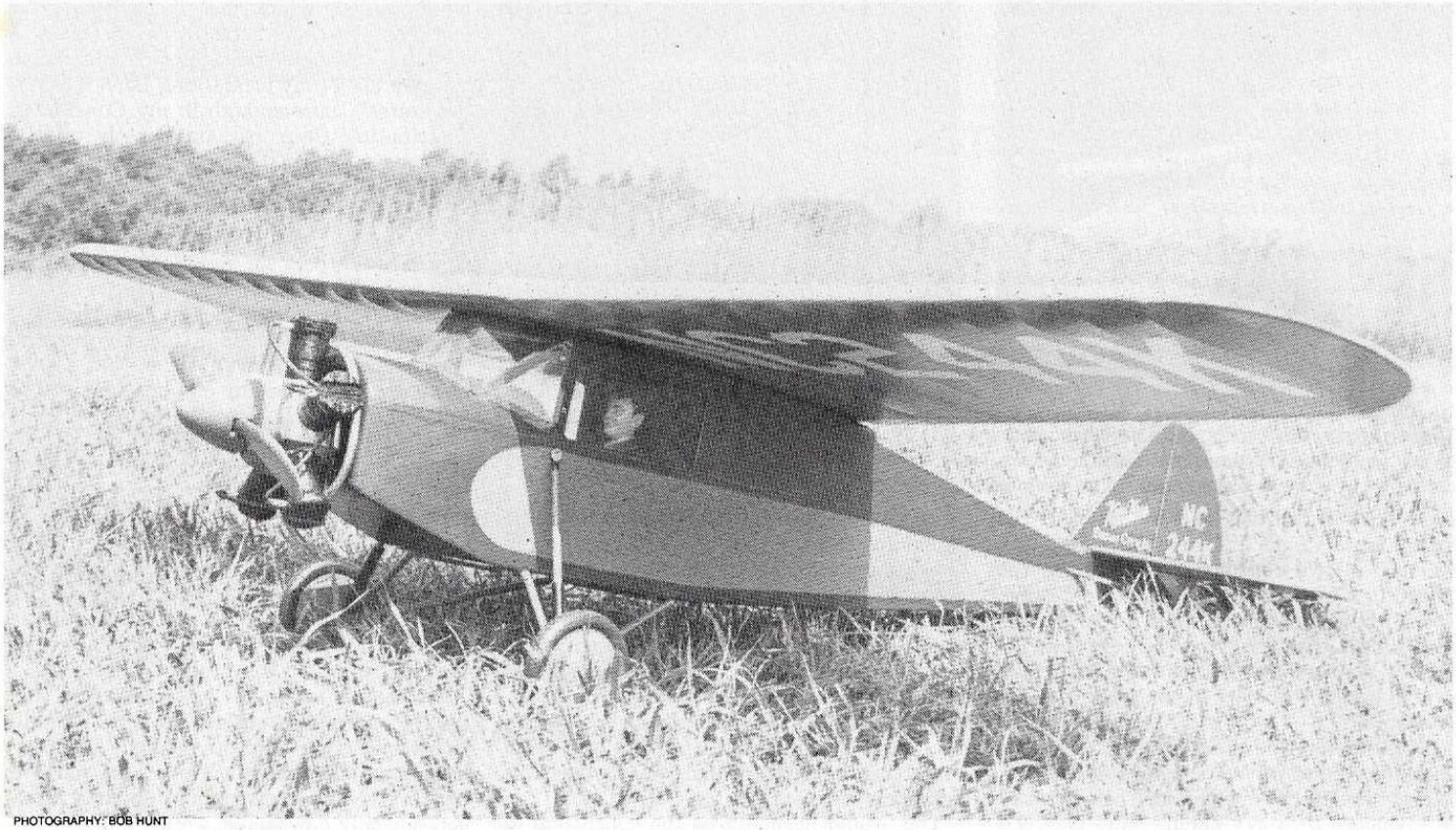


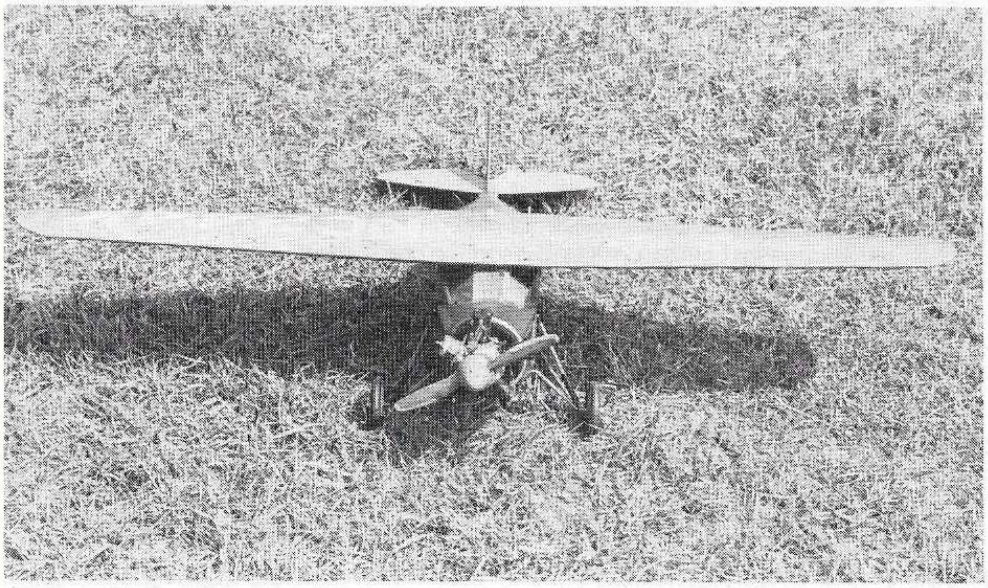
PHOTOGRAPHY: BOB HUNT

The *Kari-Keen Coupe* was never well known but it was a clean design that featured side-by-side seating and luxurious upholstery in the cabin.

Kari Keen Coupe

By Al Wolsky

Little known but luxurious, this 1920's design translates into a fine flying R/C sport-scaler.



If you think that wing planform looks like something else you've seen, you're right. Swen Swansen, designer of the *Kari-Keen* employed the cantilever wing construction of the Fokker D-8 of World War I vintage.

The year is 1927, the Kari-Keen Company of Sioux City, Iowa was engaged in the manufacture of luggage trunks which were attached to the rear of 1920's vintage automobiles that were produced at factories with little luggage fabrication facilities. Several sized trunks were marketed and earnings were good. However, the latest models of more expensive automobiles were designed with built-in trunks so it was clear that the company's days supplying accessory trunks were numbered, and other lines of products would prove necessary if the company was to survive.

In mid-1927 public interest in aviation was at an all time high after Lindbergh and two weeks later Chamberlain flew the Atlantic. The Kari-Keen Aircraft Corporation was formed early in 1928. The company employed a Mr. Swen Swansen, who was a 1923 graduate in Aeronautical Engineering from the University of South Dakota. He had, on occasion while working for the Lincoln-Standard Aircraft Company, assisted in rebuilding a Fokker D-8 of World War I vintage. The Fokker cantilever wing construction so impressed Swen that he incorported the wing design in the *Kari-Keen.* At a time when biplane aircraft dominated the market, the *Kari-Keen* was of clean design and a thing of beauty. With side by side seating, the interior was luxuriously upholstered making it seem as rich in appearance as a modern automobile of the time. Some time in late 1928 Swanson left the company and formed his own company in Hopewell, Virginia and marketed a similar design called the *Swanson Coupe.* After Swanson left Kari-Keen, a total of 24 coupes were built; however the Great Depression of 1929 forced the company into bankruptcy. A receiver raised enough capital to re-open the company and in June, 1930, the *Kari-Keen 90* was advertised. This model featured a 90 horse-

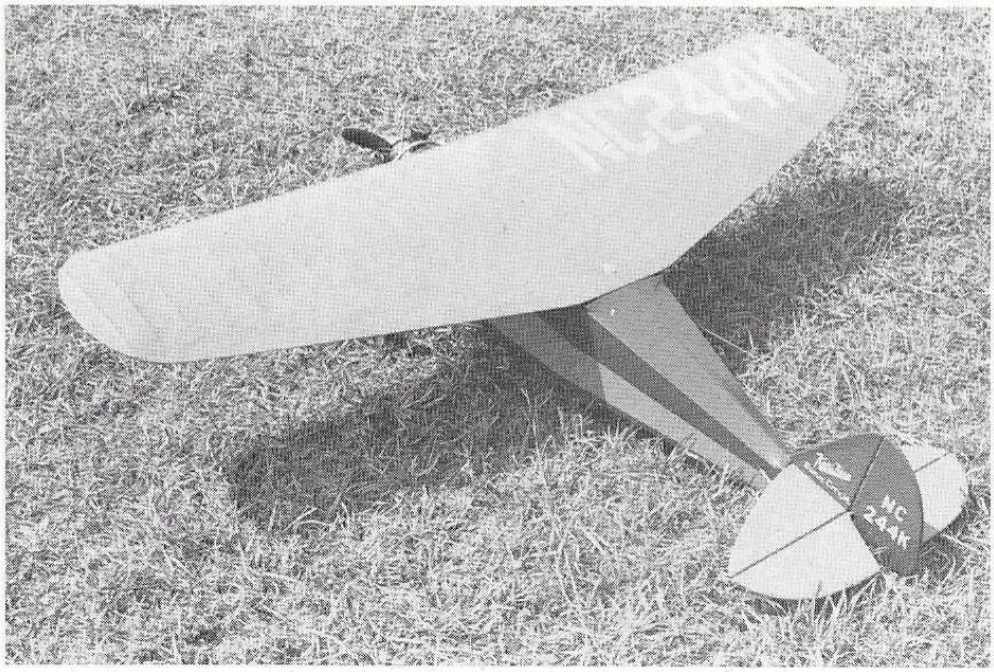
power engine along with changes in the tail surfaces and landing gear. Only six examples of this model were produced before the company was again forced into bankruptcy. Again the company was rescued; this time an investment company of Sioux City reorganized it and the name was changed to the Sioux Aircraft Corporation. Only four aircraft were produced under this name. The only changes noted in these three aircraft was in the powerplant, three of 90 HP, and one of 110 HP. The final collapse of the company came in 1931. So for an aircraft company which started business with such high hopes and did prosper for one year, struggled along for a couple of more before it finally died, it is a shame it did not survive. One can only imagine what their product would be like today if they were still in business.

Today only one flyable *Kari-Keen* survives. Frank Bass of Lewistown, Montana is the owner of what appeares to be an early model. His has been restored and is the one the model represents. Frank was a great help in sending me pictures which aided me in the construction of my model. The model is doped as Frank's is; wing and tail International Orange, fuselage Forest Green.

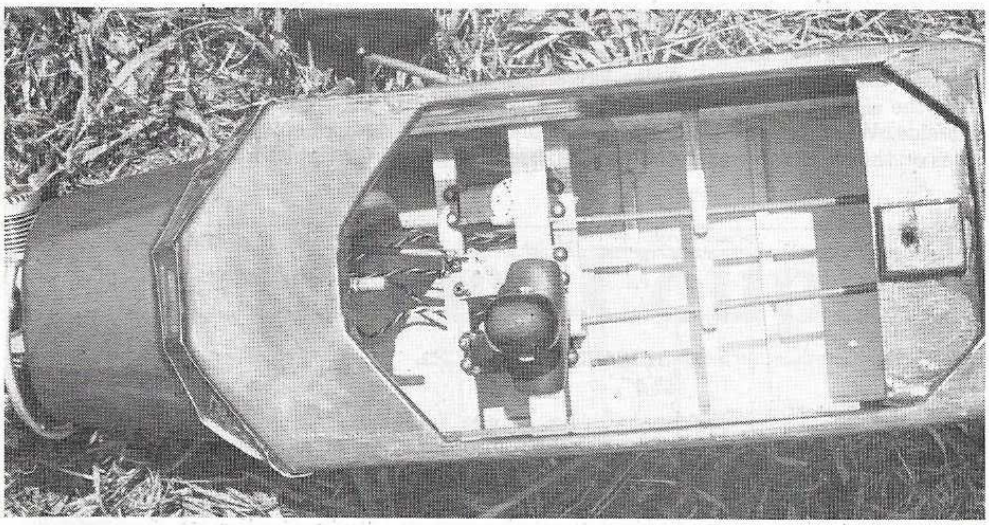
A good .35 will fly the Kari-Keen very nicely and can be incorporated in a dummy radial engine block. Right thrust is required and can be built into the firewall. Also, make sure plane balances on the C.G. shown.

Construction of model

Start by cutting from 3/32 inch plywood two side pieces which extend from the firewall to just behind the cabin side windows. I might mention that 1/8 inch lite-ply could be used in place of the 3/32 plywood. The slight weight loss using the lite-ply would be to your advantage since the finished model tends to be slightly tail heavy. To these, glue in place the 1/4 inch square balsa longerons from the side view. Make one right and one left side. When dry, carefully score the ply sides on the outer faces as noted on plan; use a razor knife for this. Locate the two sides over the top view and glue together at the tail. Work forward adding 1/4 inch square cross pieces, ending up epoxying the firewall in place. Make sure to angle the firewall to the right for right thrust. When dry, glue the



There's plenty of area to the wing (**above**). Sig Koverall was used to cover the plane along with a classic dope finish. One lone pilot figure keeps an eye on the radio installation (**below**). There's so much room in there, it looks as if he could use some company. Move the equipment around to obtain proper balance.



Many hours of enjoyment says author Al Wolsky, shown holding his *Kari-Keen*. His was patterned after the only full-size surviving example which was restored by Frank Bass of Lewiston, Montana.

plywood bottom floor and other parts in place. Plank the nose as shown and sand to shape.

Cut the upper windshield former (shown in top view) from 3/8 inch balsa, glue it in place, and, when dry, sand to shape to fit the rib curvature. The windshield framing of 3/32 inch ply pieces are glued to the above mentioned former. The landing gear wires are formed of 5/32 and 1/8 inch diameter music wire as shown. They are held to the fuselage bottom with nylon gear mount clips.

Tail surfaces and wing

Cut two each of all ribs except #1 of which three are needed. The spar can be cut of extra hard balsa, spruce, or, as I did, a piece of 1/4 inch thick pine which can be purchased from the trim department at your lumber supply. The spar is one inch wide at the center section. From rib #1 to rib #11 the spar tapers to 3/4 inch in height. These two spars are joined together with two 3/32 inch ply dihedral braces. When joining them together, the center section is flat on your bench; then raise the spar ends up one and one quarter inches. Allow to dry, then locate the spar over the plan, and glue the ribs in place. The trailing edge must be notched accurately at the rib locations.

The leading edge, a 1/4 inch diameter dowel, is next glued in place; also add the 3/16 inch square balsa top spar. When the left half of the wing is dry, turn the plan over (use furniture oil, etc. to make plan transparent) and build the right wing panel. Add the wing tips which are glued to rib #11 and angle the tips up 1/4 inch. Cut from a piece of 1/4" ply the part that will hold the wing to the fuselage and epoxy this to the rear of the spar. Next sheet the top leading edge, top and bottom center section using 1/16 inch balsa. The wing can now be placed on the fuselage to accurately locate and drill a hole for the nylon wing hold down screw. Now also position and epoxy in place the 1/4 inch dowel which holds the wing in place at the front cabin area.

All outlines and material are of 1/4 inch balsa for the tail surfaces. Join the elevators together with 3/32 inch diameter wire.

Finishing model

With all construction complete, sand all edges smooth and in general, make certain the entire frame is smooth and free of glue blobs etc. Cover your model using your favorite material. I used Sig Koverall, which is a polyester heat shrink material. After brushing on five coats of Randolph clear dope (thinned 50-50), the model was sprayed with Sig color dope. The wing, stablizer, elevator, and trim down the side of the fuselage were International Orange; the fuselage, fin, and rudder were finished in Forest Green. This color combination follows the antique resotration example which Frank Bass owns.

Epoxy the stablizer, fin, and rudder to the fuselage. Mount the engine. Lay all radio equipment in fuselage and then mount the wing by moving batteries servos, etc. around. Balance the model at the C.G. location. This means your model should not hang tail low. If it does, add weight to the nose. Now mount the servos permanently in place, add pushrods, and again check the C.G. Do not attempt to fly your model unless it balances level or slightly nose low. Make certain no warps or twists are in the wing and tail surfaces. Flying the *Kari-Keen* should present no problem. It should give you many hours of enjoyment. Best of flying.