THE DESERT DUSTER

By DEE MILLETT . . . An unusual quarter-scale subject, a model of a powered ultralight, both designed and built by the same person. It's light, and verrry slow in the air. Author cautions: flying may cause drowsiness!

• After a few flights I began to realize the Desert Duster was nose heavy. More weight was needed in the back. So I decided to add a couple of cans of fuel for ballast. It flew better and I didn't have to hold so much up elevator to fly it. Sitting in the cockpit, it was a real thrill to skim along the ground at a nice, slow speed, with the knowledge that this was one of the first and lightest gas-powered ultralight airplanes to fly. All 106 pounds of it had lifted off the ground with relative ease.

The Desert Duster had been the result of test flying a friend's Wing Ding home-built aircraft. I wanted something that was lighter and slower. . .and more conventional than most hang gliders designed with an engine. The Desert Duster is a three-axes control ultralight airplane, with a 12-hp go-cart engine. It gross weight is 294 pounds.

Flying the Desert Duster was delightful. It had good control response. My dream had become a reality.

May of 1979 was when I originally designed the Desert Duster. At the time of this writing, I am looking forward to adding more power. . .perhaps to 18 hp. Some other modifications might be added.

The model presented here is a 1/4-scale version of the full-scale Desert Duster. It has a 6-foot wingspan. The scale model is powered by a 15-25 engine. This model is designed to fly realistically. Remember, this is an ultralight aircraft. It can also be powered by a 10- or 15-electric motor of your choice. Six or more models have been made, and the average weight has been from 32 to 45 ozs. So beware of your power. As you will note, the construction is of a very light manner. If overpowered, structural damage could occur.

This model can be flown indoors or outdoors. This quarter-scale version is truly an ultralight model. It will give many hours of flying that has not been achieved in a model airplane of this size. This big bird is different. CAUTION: Flying may cause drowsiness, especially on those lazy Sunday afternoons.

CONSTRUCTION

Care should be given to selection of wood. As noted on the plans, specific grades of wood are used on the wings, tail feathers and fuselage. Construction will begin with the wing. Get a sheet of straight grain 3/32 balsawood. The top portion of the ribs will be cut from this. This will insure that all of the ribs will be of the same firmness. After the plans have been carefully studied, place waxpaper over them. Pin to the building board. Start by placing the spruce leading edge (or similar substitute for hard balsa). Spruce was used in my model to insure strength. Place the 1/4-square spar on the plan and begin putting in the 1/4-square bottom ribs. By the way, 80% of the construction of the original models were put together with cyanoacrylate. The wings were com-

Here's the full-size Desert Duster, with the author-designer at the controls, during taxi tests. The total flying weight of prototype with pilot, 294 pounds. Model weighs in at 32 ounces!