

INTERESTING GLIDERS

by PETER M. BOWERS



Photo: Peter M. Bowers

Or are they? These Benson Gyro Gliders, which none of the soaring fraternity took seriously when they first appeared about four years ago, have "caught on" like wildfire recently, and are putting in an appearance in increasing numbers at gliderports, little-used airports with good long paved runways, beaches and other places where a long smooth auto tow can be had.

The name Gyro Glider seems to be a misnomer, applied mainly because the aircraft is unpowered, like a glider, while being based on the configuration of a recognized aircraft type, the now extinct autogyro. Actually, under the conditions governing the flight of these whirlybirds, they operate like a kite. They take off on tow and they land on tow. As long as they are flown this way, the CAA regards them as a kite instead of a conventional aircraft, and permits them to operate free of the requirements of registration numbers, airworthiness certificates, and pilot qualifications. If, however, they are to be released from the tow, they must qualify not only with all of the foregoing, but with the additional operating limitations imposed on amateur-built and certain other experimental aircraft.

Little is known so far of the free-flight characteristics of the Gyro Glider. Its rate of descent is reported to be in the neighborhood of sixteen feet per second, only a bit less than the normal rate of descent of the standard parachute. The accepted flight procedure is to start out with

a ground run behind a car on a 200-foot tow line to bring the rotor up to speed after starting it by hand. Depending upon the skill of the participants and the operating conditions, this may take up to one thousand feet of runway. Once the rotor is ready, the ship will lift off at an airspeed of about 25 mph, considerably less than that of present-day gliders and sailplanes. The rotor is controlled by the pilot with a stick projecting downward from the rotor support, and the axis of the rotor is displaced for pitch and bank. Because the stick with its tee handle points downward, control action is just opposite to the desired movement of the ship *Forward* stick for climb, *Right* stick for left bank, etc., like the tiller action on a boat. This reverse action has given some high-

time pilots a bit of trouble at first but doesn't seem to bother the beginners who go by the instructions in the book.

Landing procedure calls for the tow car to slow down far enough from the end of the runway to allow the 'copter to be brought down without the line going slack, and with practice a pilot can set one down like a feather.

When plans of the Gyro Copter first appeared on the market, the basic fuselage frame was designed to use low-cost and available materials—gas pipe with standard plumbing elbows for joints. Now, however, the plans and kits use aluminum tubing, at a considerable saving in weight, and the result is a simple and efficient-looking structure that will bring a second look from old flyers who ignored the original gaspipe creations. Igor Bensen, designer and manufacturer of the Gyro Glider, has also turned out seaplane versions as well as marketed a separate mounting for a rotor assembly that can be attached to a lightweight row-boat hull for towing behind a speed-boat. The basic aircraft has also been fitted with the well-known Nelson two-cycle engine and marketed as the Gyro Copter even though it is a true autogyro because the propeller imparts the forward motion.

Regardless of what it is called; kite or glider, the Gyro Glider seems to be here to stay. In four years, it has surpassed the total of registered sailplanes in the country (although only four Gyro Gliders have CAA registration numbers), and it is reported that thousands of sets of plans have been sold. Whether this will cut in to the supply of potential soaring pilots or whet the interest of additional numbers remains to be seen.

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