



Model of \$13,990 Rotorplane is placed on display at Palm Springs. Machine reportedly will have top speed of 130 m.p.h. and range of 350 miles with useful load of 550 pounds

Lear's Low-Cost Autogiro

Without fanfare and with only low-key promotion, the prototype of what may be a new low-cost autogiro-type plane on the market made its debut as a static display at the 1966 AOPA Plantation Party and Industry Exhibit at Palm Springs, Calif., last month. It was the Lear Rotorplane, a small two-place, twin-boomed autogiro designed to sell for \$13,990. Powered by 180 h.p. Lycoming engine, the Rotorplane will have a top speed of 130 m.p.h., and cruise at 120 m.p.h., Lear claims.

The machine was sent to the Plantation Party by Lear Jet's VTOL Division in order to get pilot reaction to such a plane. Lear officials are now studying their findings and an announcement concerning future plans for the Rotorplane is expected before the end of the year. They were reluctant to comment on the project at Palm Springs. However, an indication of their thinking was contained in a six-page brochure distributed at the company's booth in the Industry Exhibit. Along with information about the Rotorplane, the brochure invited inquiries regarding the availability of dealer franchises.

The Lear Rotorplane was designed by D. K. Jovanovich, president and chief engineer of Jovair Corporation of Cul-

ver City, Calif. Jovanovich's contributions to the helicopter and autogiro art include the development of 12 prototypes which have provided successful models for the commercial and military markets.

The brochure described the Lear Rotorplane, designed by Jovanovich, as the successful culmination of a long search for a reliable and inexpensive VTOL design. "The market was researched and the need for an inexpensive, easy-to-fly and highly reliable VTOL aircraft was found to exist in abundance," the Lear brochure said. "Many designs were studied and it was determined that one in particular fit the needs of this large segment of the general aviation public."

Here are some of the claims made for the Lear Rotorplane:

Rotor system reliability: "The Lear Rotorplane uses one of the simplest and most proved rotor systems in the world . . . the system that is in the U.S. Army inventory and being used on the Army basic trainer, the TH55A.

Flying ease: "Lear Rotorplane flight is similar to, and as easy as, flying a single-engine lightplane. All the highly complex and exacting pilot skills previously required for VTOL flying have been eliminated."

Maintenance: "Maintenance on the Lear Rotorplane is fast, easy and low cost due to the basic design simplicity of all systems and components. The elimination of unnecessary, costly mechanisms . . . has not only lowered the initial cost, but has also substantially reduced service and maintenance costs." Operating costs are only about one-fourth those of the most inexpensive helicopter, the literature claimed.

Two of the attention-attracting features of the Rotorplane, while it was on display at Palm Springs, were the pusher propeller, extending from the engine in rear of the passenger cabin and the twin-booms with dual vertical stabilizers. The twin booms also provide protection from the pusher propeller.

The Lear brochure gave these specifications and performance data for the Rotorplane, Model 20:

SPECIFICATIONS

Length	16 ft.
Width	9 ft. 3 in.
Height	8 ft. 3 in.
Rotor diameter	27 ft.
Gross weight	1400 lbs.
Empty weight	850 lbs.
Useful load	550 lbs.
Fuel capacity	25 gals.
Power	180 h.p.
Engine	Lycoming O-360 A2E
Propeller	72 in. Fixed Pitch (Std.)

PERFORMANCE

Normal cruise speed	120 m.p.h.
Maximum cruise speed	130 m.p.h.
Landing & takeoff speed	0 to 30 m.p.h.
Range (normal cruise)	350 miles
Service ceiling	13,000 ft.
Rate of climb	1,000 f.p.m.