

WHAT'S IN A NAME?

As the man himself put it: "Since my first aircraft modification project nearly 40 years ago, I've never ceased looking for ways to make good airplanes even better. The best way to achieve more speed and performance is by reducing aerodynamic drag and installing more efficient power."

The man is, of course, Jack Riley, Sr., whose company produced nearly 80 percent of the turbocharger systems used in General Aviation aircraft, as well as total powerplant conversions for the Dove, Heron, Jetstream, Navion and Cessna 310, 340, 414 and 421.

After working his unique magic on the Cessna P210N/R Pressurized Centurion to cre-



Riley International has what it takes to turn a pressurized Cessna 337 Skymaster into a Super Skyrocket

By Chuck Stewart

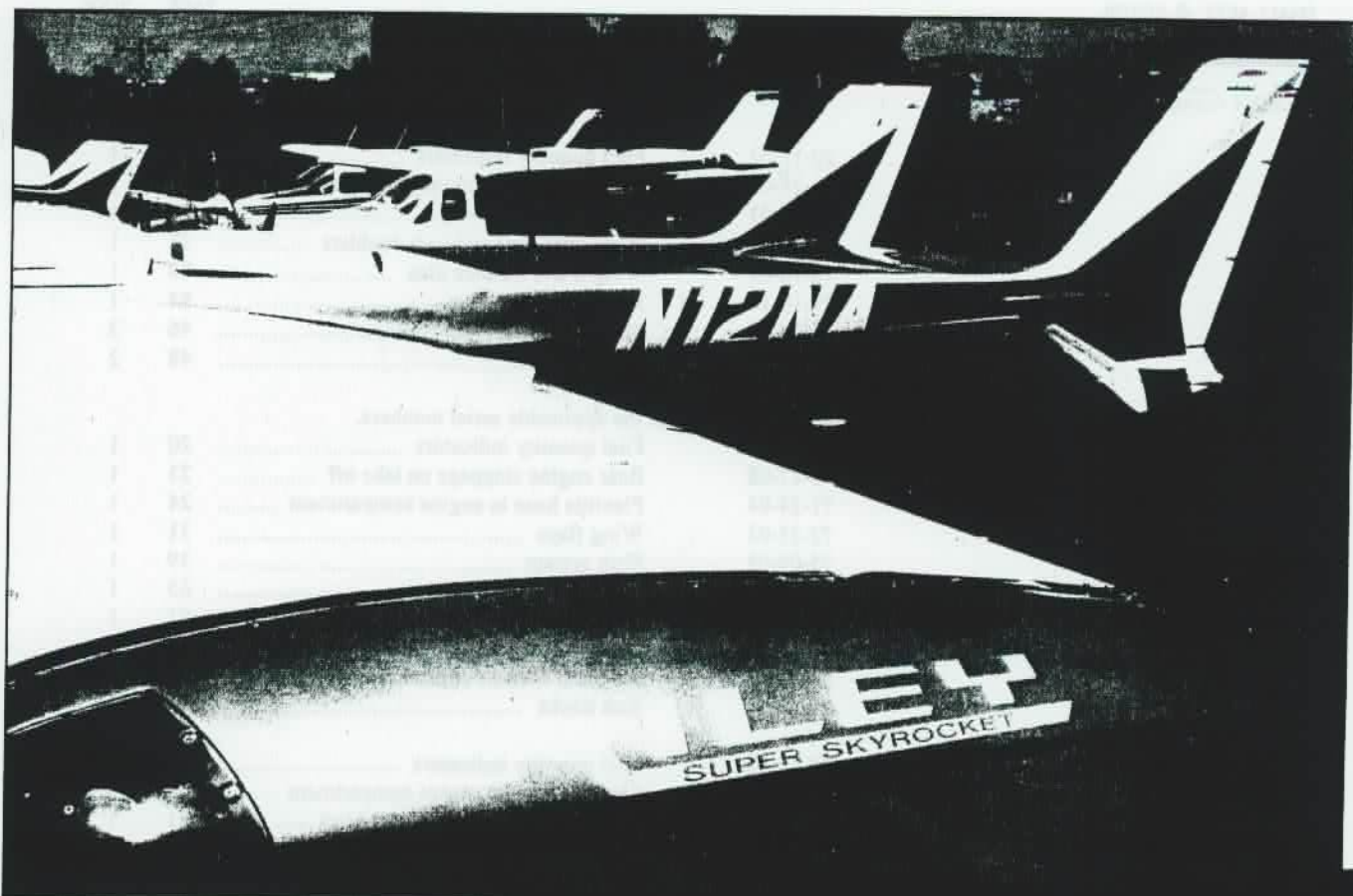
ate the Riley Rocket, Jack Riley turned his attention to Cessna's push-pull, twin-engine P337 Pressurized Skymaster (built from 1973-80). The result was the Riley Skyrocket, a somewhat expensive upgrade of the Skymaster that featured significantly improved performance figures.

Riley's latest project — the sixth 300-mph aircraft in the Rocket series — is transforming

Pressurized Skymasters into what he calls the Riley Super Skyrocket. The recently approved series of STCs took years and several hundred thousand dollars to develop.

The Riley Super Skyrocket conversion begins with the removal of the Skymaster's original powerplants: a pair of 225-hp Continental TSIO-360-Cs or CBs. These are replaced with a pair of factory-new, turbocharged, 342-hp Continental TSIO-520NB engines with 1600-hour TBOs. The *piece de resistance* is the Riley-developed intercooler system, a necessity, especially for the rear engine.

The powerplant upgrade also includes a pair of deiced, three-blade, 74-inch-diameter, dynamically balanced Hartzell propellers and new governors with both synchronizing and synchrophasing.



Lest there be any doubt that you're flying a Cessna Skymaster on steroids, Riley International uses this subtle form of advertising on its Super Skyrocket conversions.

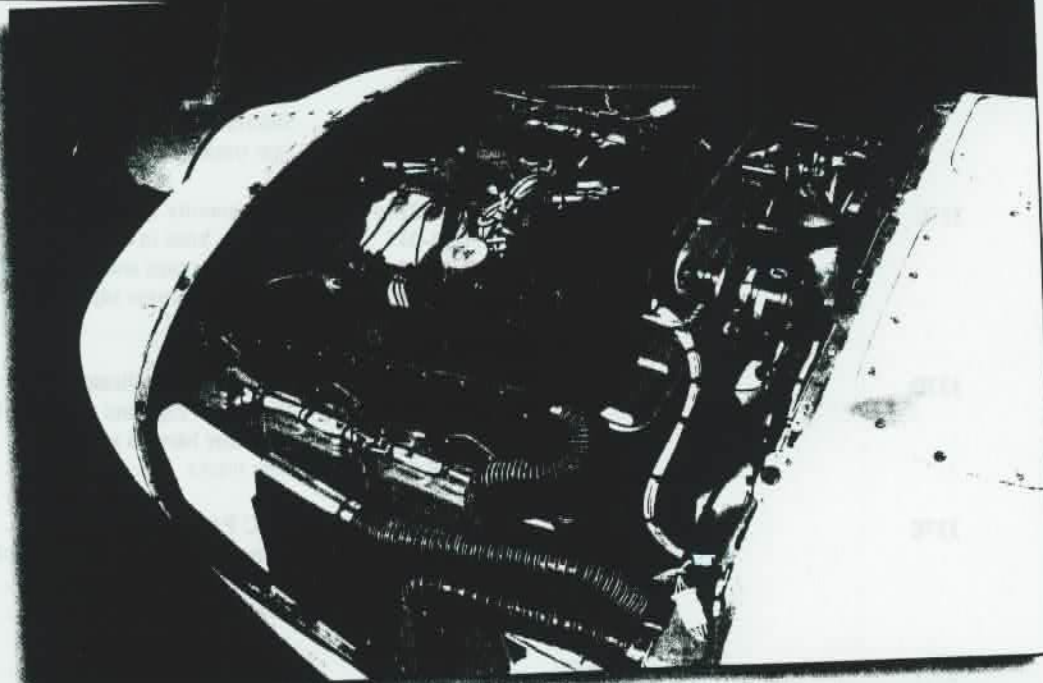
The heart of the Riley Super Skyrocket conversion is the engine changeout. The original 225-hp Continental TSIO-360-Cs are replaced by a pair of factory-new, turbocharged, 342-hp Continental TSIO-520NB engines fitted with Riley-developed intercoolers.

As with all of Riley's STC conversions, customers must bring their aircraft to the Riley International Corp. facility at Palomar Airport in Carlsbad, California, just north of San Diego. There, Riley's experienced staff removes both engines and all associated systems firewall forward, and installs the new TSIO-520NBs.

Every Super Skyrocket undergoes a top-to-bottom rebuild of all systems, as well as a completely new, soundproofed interior. (Noise and vibration have always been problems with the Skymaster because both engines are attached directly to the passenger compartment, creating annoying sympathetic vibration unless the props are synchronized.)

Along with pressurization and air conditioning, electric pneumatic door seals and double-pane windows are installed to assure passenger comfort. The conversion also includes a new polyurethane paint job with colors selected by the customer; a Horton STOL kit with droop wingtips; new tires and Cleveland brakes with stainless steel discs; a heavy-duty battery; and dual alternators and vacuum pumps. Available options include a deicing system and long-range fuel tanks.

The instrument panel also comes in for its share of work in the Super Skyrocket conversion: a WX 1000+ Stormscope; an S-TEC 65 flight director system; King Silver

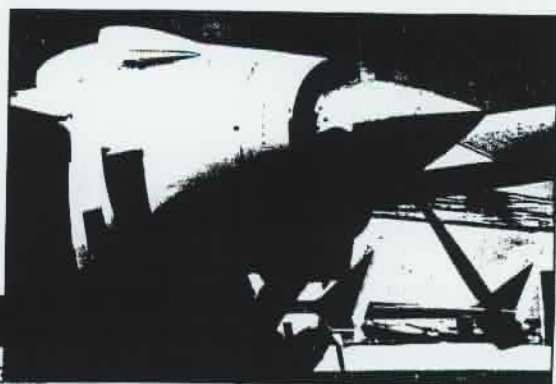


CESSNA SKYMASTER VS. RILEY SUPER SKYROCKET

	P337 Skymaster	Super Skyrocket
Price:	\$112,950	\$560,000
Engine:	Continental TSIO-360-C/B 225 hp	Continental TSIO-520-NB 342 hp
Performance:		
Top speed	237 mph	300 mph
Service ceiling	20,000 ft.	23,000 ft.
Rate of climb	1170 fpm	2500 fpm
Range	935 s.m.	1300 s.m.

Crown avionics, including a KLN-90 GPS navigation system; and all-new, two-inch digital analog engine instruments, including a Shadin fuel-flow gauge and JB engine analyzer.

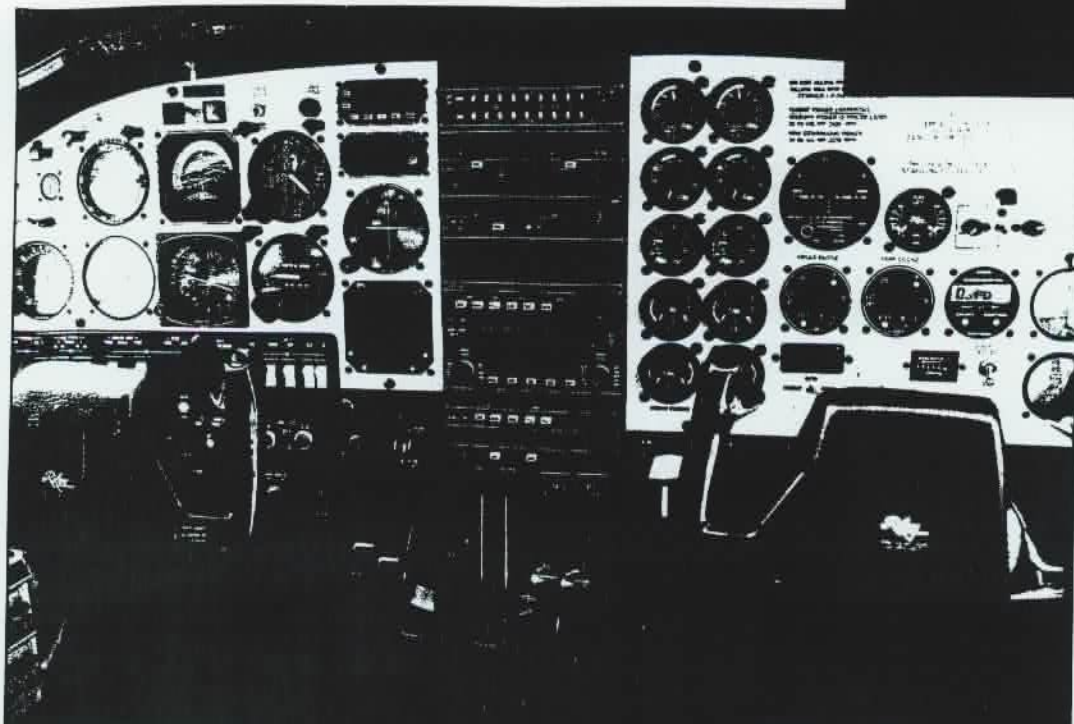
With the installation of the two more-powerful engines (117 additional horsepower per engine, 234 hp total) and the Horton STOL kit, the numbers at both ends of the P337 Skymaster/Super Skyrocket's performance envelope are improved. The plane can operate from a 1200-foot airstrip, yet its top speed jumps from 237 mph to 300 mph, and its service ceiling goes from 20,000 feet to 23,000.



The much larger turbocharged, 342-hp Continental TSIO-520NB engine in the rear of the Super Skyrocket requires plenty of air scoops, inlets and outlets for proper cooling.

The panel of a Riley Super Skyrocket conversion also gets an upgrade — mostly in the form of new engine instruments. What fills the rest of the panel is up to the customer who owns or buys the plane.

Because the rear engine on a Skymaster is facing "the wrong way," keeping it cool in flight is imperative; and on the Super Skyrocket, with its much larger engine, cooling is even more critical. One of the things that helps keep it cool is this enlarged over-fuselage air scoop.



Or as the amazing Jack Riley, Sr. — a quick-witted man who, at age 80+, can still crush your hand with his powerful handshake — puts it, "For only \$10,000 more, our Super Skyrocket goes 200 mph faster than a top-of-the-line Bonanza with one engine out!"

Jack Riley's tongue-in-cheek comparison begs the obvious next question: How much does a Riley Super Skyrocket conversion cost? A lot more than the \$112,950 a P337R sold for in 1980: \$560,000. Yes, it's a lot of money, but

bear in mind the vast amount of time, effort and money Riley has invested in developing and winning approval for the necessary STCs. Also bear in mind, Riley reminds customers, the pleasure of flying the hottest Skymaster the world has ever seen.

For more information, contact Riley International Corp., 2206 Palomar Airport Rd., Carlsbad, CA 92008; telephone (800) 841-1115. †

