



New Twin Airborne

A joint project of Rockwell and Fuji, the Commander 700 makes its U.S. debut



Low wing and mid-tail-mounted horizontal stabilizer separate new Rockwell Commander 700 from company's traditional high-wing twins. This pressurized, turbocharged model will roll off production lines next year, to be followed later by turboprop and jet versions.

■ ■ All Rockwell Commander twins have high wings and a low-slung belly, right? Wrong.

Rockwell International's newest twin, the turbocharged and pressurized Commander 700, made its maiden flight through U.S. skies late in February—and it looks nothing like its twin-engine brothers.

Because it has low wings and a horizontal stabilizer mounted halfway up the vertical tail, it looks more like a relative of the Rockwell Commander single-engine series.

The Commander 700 is a joint venture between Rockwell's general aviation division and Fuji Heavy Industries of Japan. A Japanese-built prototype of the Commander 700 has already flown in Japan, but the flight of the 700 from Wiley Post Airport near Oklahoma City last February was the first for a craft assembled by both companies.

The U.S. prototype had its basic structure created by Fuji in Japan. Then the disassembled fuselage hull, wings, and tail components were packaged into a



Photos by the author.

will be standard. It has a maximum takeoff and landing weight of 6,600 pounds and an empty weight of 4,500 pounds.

On the initial flight, which lasted 50 minutes, the craft was limited to 175 knots indicated airspeed. Its true airspeed was computed to be 230 mph, and it climbed to about 10,000 feet for stability checks, stalls, and gear-cycling tests. A Commander 690A flew beside the new twin, videotaping the test for later review on the ground.

Rockwell says the top speed of the airplane is expected to be 268 mph at 20,000 feet. Company test pilot Paul R. Leckman (AOPA 203567) made the first flight in the U.S. built 700.

According to Rockwell officials, their company and Fuji industries first got together five years ago to discuss a joint venture. Rockwell at the time was in need of a medium-size pressurized twin and a light jet to fill out its aircraft line. Development funds were already committed to their upcoming single-engine series and to the 690A turboprop twin.

Based on an aircraft already designed by Fuji, with design modifications from Rockwell, the two companies committed themselves to codevelopment of the Commander 700 in June 1974. Since that time Rockwell has stationed a full-time coordinator overseas and has had as many as 14 engineers and inspectors working at the Fuji aircraft factory in Utsunomiya, Japan. Wind tunnel, smoke tunnel and stress testing were done at the Fuji facility before their first prototype flew in November 1975.

Tom Merry, the 700 program manager, said first production models of the low-wing twin would roll from the Rockwell paint shop in February 1977. Production would initially come at two per month and eventually go up to six or seven per month.

The 700 features a good deal of flush riveting, as well as much use of metal bonding in its construction. Landing gear is of conventional oleo design and has an electric/hydraulic retraction system. Emergency gear down is primarily accomplished by way of free-fall and airflow. Cowl flaps are found on the top of each engine nacelle, and open inward. Fowler flaps are electrically operated. Integral fuel tanks hold a total of 190 gallons.

The plane is to be certificated to meet

the requirement of Part 23, Amendment 14, of the Federal Aviation Regulations. These are new standards for general aviation aircraft, similar to earlier requirements set for commercial air transport category planes, say Rockwell officials. They claim no other general aviation twin is certificated to the new standards.

Company representatives cited as possible competition for their craft the Beech 58P Baron, the Aerostar 601P and the Cessna 340 and 414. They noted, however, that the cabin of the 700 is almost twice as big as other aircraft in its class and that it has a pressurization system that will hold the cabin at 5,000 feet when at an altitude of 20,000 feet.

"We're not in a position to discuss price," said Slivinsky, "but I guarantee you we will be under the 414." A Cessna 414's base price for 1976 is \$203,950.

Officials at Rockwell stated firmly that several new general aviation aircraft would be derived from the Commander 700—notably a turboprop and a light jet. They said the present wing on the 700 has a .68 mach limit. Slivinsky added, however, "We are not forgetting the high-wing Commander. We will continue to improve it as long as we see a market." He reported that the Commander 690A for 1977 will be "tremendously improved with regard to weight, performance, noise and styling." Rockwell, he said, is a "full-line general aviation company," committed to building "creature-comfort, wide-bodied aircraft."

In other news at the company, certification of two new single-engine models, the 260-hp Commander 114 and the turbocharged 200-hp 112TC, was slightly behind schedule. Certification for both singles, however, was expected to be accomplished during March.

Also, officials conceded that Commander twin sales had been lagging (80 employees were recently laid-off the twin production line). They said they intended to spark more interest in the line—and planned to have Bob Hoover back on the airshow circuit with his Shrike Commander aerobatic performance. Hoover, a well-known show pilot, has flown in a Shrike frequently in the past, but performed in the Rockwell twin only occasionally in the last couple of years.

—B.B.

trailer container, towed to Tokyo's harbor, loaded onto a ship, floated to Los Angeles, towed again to Oklahoma, inspected by Customs officers, and—eventually—turned into a flying airplane. Production aircraft will follow the same route, except the U.S. port will be Houston.

Rockwell's Cornell Slivinsky, general aviation division president, said that although all the sheet metal work is done in Japan, the plane's bill of manufacture is about 80% U.S. Rockwell installs engines, pressurization system, brakes, wheels, electronics and interiors. Slivinsky stressed that this was not a kit-built airplane. Instead, he said, it was a "program in today's technology," combining the resources of several companies. "The day has gone where one company can start up a new plane. The risks and costs need to be shared," he added.

The Commander 700 seats six to eight. It is powered by two Lycoming TIO-540 powerplants, each rated at 340 hp. Air conditioning and pressurization