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MU–2 *Renaissance*

Owners investing in timeless turboprop twin

BY MIKE COLLINS

MITSUBISHI'S MU–2 twin-engine turboprop was ahead of its time when it was introduced more than five decades ago.

Work on the high-wing, pressurized twin began in 1956. There are two basic varieties: a short body that typically seats seven, and a long-body model that can accommodate eight to 11 people. Both models carry 90 gallons of fuel in distinctive tanks on each wing tip, in addition to wing tanks. One of the biggest differences between the MU–2 and other turboprops is that for roll control, Mitsubishi used spoilers instead of ailerons.

Why spoilers? Designers wanted an airplane that could cruise at 300 knots and operate from short strips, necessitating a very small wing (178 square feet in many models) and nearly full-span flaps. The spoilers are very effective, and roll rates at low airspeeds are almost the same as at high speed—unlike aircraft with traditional ailerons.

PHOTOGRAPHY BY THE AUTHOR

CRAIG HILI

Craig Hili of Raleigh, North Carolina, has owned his MU-2 just over a year. He started flying in 1995 and has owned three Mooneys, a pressurized Baron, two Cheyennes, and an Aerostar. He averages better than 300 knots on 75 gallons per hour in his short-body 1979 Solitaire. "It's just an amazingly efficient machine, and it can be had for an amazingly reasonable cost. It's a great airplane."

A typical trip for him is from Raleigh to Chicago, or Chicago to Denver. "It's a real good airplane for Chicago to Philly. It's extremely versatile." And it can go in and out of 2,000 feet of grass if you need to, he added. He has hangars at Johnston County Airport in Smithfield, North Carolina, and in Gary, Indiana, outside of Chicago.

Hili looked at a couple of jets, but the economics didn't work. "Those jets fly very easily, but let's look at a trip from Raleigh to the Philly area. You can get there faster doing 300 knots in my little turboprop than you can in a jet. For a trip that's 300 miles, you don't save any time." Flying from Chicago to Raleigh in a jet, the cost has literally tripled, he said. "The MU-2 is so efficient. I would say anything 600 nm and shorter, if you're not getting there any quicker, you're taking no longer than 10 or 15 additional minutes in the turboprop."

Hili owns Mercy Diagnostics, a clinical diagnostics business, and 95 percent of his flying is for the business. He trains every six months—only annual training is required by the SFAR—and he's only scrubbed one MU-2 trip so far because of weather. Hili had only 25 hours in the airplane at the time and would fly that trip today. "I just don't put myself in situations where I don't feel comfortable," he said.

CRAIG HILI AND SON, ANDREW

DURING A BREAK IN the weather, MU-2 owners and pilots inspect aircraft on the Aiken ramp. Their objective? To select the best MU-2 on the field—which will be designated the queen of the fleet.

The MU-2 first flew on September 14, 1963, and more than 700 were built before production ended in 1986. Nearly 300 remain in operation, with 226 aircraft listed on the FAA registry in November 2015.

The model has a checkered past, with an accident rate in the early 1990s that was 6.62 per 100,000 flight hours—the highest of any turboprop twin. By 1981, it had attracted the NTSB's attention, and eventually the FAA conducted a special certification review of the MU-2. When that review found no flaws with the airframe or its design, the focus shifted to training. Special Federal Aviation Regulation (SFAR) 108 was issued in January 2008 and took effect February 5, 2009. The rule requires training for new MU-2 pilots and annual recurrent training; pilots must use Mitsubishi's standardized cockpit checklist and the latest revision of the aircraft flight manual. Some pilots characterize the training as very similar to a type rating, albeit without the checkride.

The rule made a big difference in the MU-2 safety record. Through 2009, the year that the SFAR became effective, the U.S.-registered MU-2 fleet had an accident rate of 3.79 per 100,000 flight hours, compared to a U.S. turboprop business fleet average of 2.04 accidents per 100,000 flight hours, said Bob Breiling of Robert E. Breiling Associates, who has been analyzing business turbine aircraft accident data since the 1960s. For the period 2010 through 2014, the MU-2 accident rate fell to 1.39 per 100,000 hours; the fleet average for that period was 1.17 per 100,000 hours. "Even with fewer accidents, the causes of them are less severe overall," he said. "One was a hard landing, another the pilot forgot to extend the gear. But they count as accidents."

The MU-2 community has changed significantly since the SFAR's implementation, as well. Several MU-2 owners believe the airplane's efficiency and high performance, combined with affordable purchase prices, made it popular with "fringe operators" reluctant to spend money on type-specific training or service-center maintenance. The cost of mandatory annual training, they say, has pushed those operators into other aircraft.

Filling that void is a new type of owner, attracted to the same efficiency, performance, and market pricing—from $300,000 for a clean, average airplane up to $1 million, depending on engine and propeller time and avioincs. (A fully refurbished MU-2, such as Air 1st's Platinum series, can reach $1.5

million.) However, these individuals are very willing to invest in the SFAR 108-mandated training—and almost every other aspect of their Mitsubishi turboprops.

"The reason that our owners and operators are so cohesive is that it's a continuation of that attitude toward the airplane, even before the SFAR," said Pat Cannon, president of Turbine Aircraft Services Inc., which has a contract with Mitsubishi Heavy Industries America Inc. to help support the MU-2. "There was a group that was out there, they didn't want to bother—they didn't want to train, they didn't want to attend [safety events]. They were the ones having the accidents."

When MU-2 product support transitioned to Beechcraft in 1986, FlightSafety continued to provide MU-2 training, but Cannon said it was not being recommended as it had been by Mitsubishi. "A lot of new training providers sprang up, and they were pretty much doing what they wanted. About 70 percent of those were not training in accordance with the flight manual." A major concern was the fact that flight in the aircraft was not required, which MU-2 pilots thought was key. This led to the SFAR's requirement for standardized training, including training in the aircraft.

Some new owners are spending lavishly on their Mitsubishis, investing in new panels, paint, and interiors. A new five-blade propeller available from Germany's MT Propeller also is popular; owners say it improves performance while helping to reduce the MU-2's noise—especially on the ground. "The community is saying that these airplanes will last another 30 years, and I think they will," Cannon said. "There's a renaissance in the ownership community."

What kind of support is available for an airplane that's been out of production since 1986? *Aviation International News* has described the MU-2 as the "perennial favorite" in the turboprop rankings of its annual Product Support Survey, which uses reader input to rate the level of manufacturer support. Mitsubishi retained its first-place status again in 2015.

In addition, Mitsubishi Heavy Industries America presents free P.R.O.P. seminars—for Pilot's Review of Proficiency—every other year. These safety seminars are oriented to the MU-2, although all pilots are welcome to attend. The 2016 P.R.O.P. events will be held in Dallas, April 1 and 2; Tucson, Arizona, April 15 and 16; and Cincinnati, April 29 and 30.

And the MU-2 community holds a fly-in during the years between P.R.O.P. seminars. Mike Laver and his Air 1st companies—he buys and sells MU-2s, operates a service center, and runs an

KEN SUTTON

Ken Sutton of Barrington, Illinois—an airline pilot for 27 years who retired at age 50 to take over his family's intellectual property business—bought his MU-2 in 2013. He had owned a Bonanza V35, and then a Cessna 310 for 10 years. When his daughter went to the University of Michigan in Ann Arbor, "I realized trying to fly back and forth across Lake Michigan that the 310 was not the right machine."

He searched across the wide spectrum of aviation. "On paper the airplane that always rose to the top was the MU-2." He had a hard time getting past its reputation until he got to fly one, and began studying the NTSB accident reports. He also noticed that the accidents dropped off when SFAR 108 became effective. "I thought, geez, that sounds like a type rating. It's exactly the same maneuvers and exactly the same standards for every type rating I have on my ticket."

Sutton doesn't miss the airlines. "The MU-2 fulfills my desire to fly—it's a perfect airplane for that. It's like a mini-airliner." And that's how he uses the airplane, flying employees around. "We're trying to reduce the billable costs of our attorneys, and the MU-2 is perfect for moving them around quickly." He integrates family visits with business trips when he can.

When Sutton bought his MU-2, he upgraded everything at once, and then trained in the airplane with the new panel. His efforts earned him a Queen of the Fleet award, voted by his fellow MU-2 owners, at the recent Aiken fly-in (Wayne Haub of Missouri also was recognized in the competition's first-ever tie). "For that group of guys to acknowledge my airplane is a moment I'll never forget," Sutton said, especially considering the number of owners investing in airplane upgrades. "They're making them better than they've ever been before."


KEN SUTTON

TWENTY-EIGHT MU-2s, from as far away as California and Nevada, fill the ramp at Aiken (South Carolina) Municipal Airport.

FBO—hosted one in Aiken, South Carolina, October 9 through 11, 2015. Twenty-eight MU-2s flew in, from as far away as California and Reno, Nevada. "I was very pleased with that, and I think it was one of the larger fly-ins," Laver said, especially considering flooding in the region and forecasts for continued poor weather.

This was the first time Laver hosted the event. "I bet it's been going 18 to 20 years," he said. Recent fly-ins have been held at Lake of the Ozarks, Missouri, and Green Bay, Wisconsin. "It was held in St. Croix four years ago. That was a lot of fun—it was just a relaxing good time on the beach. They've all been great and unique in their own way." The next fly-in will be held in Coatesville, Pennsylvania, in 2017.

Several pilots at the Aiken fly-in were making plans to fly their airplanes to Europe in the summer. Laver may have inspired some of them when he flew his personal airplane, a 1973 MU-2B-25 Solitaire, around the world and was in Nagoya, Japan—where the MU-2s were manufactured—on September 14, 2013, the fiftieth anniversary of the model's first flight (see "Around the World in 25 Days," December 2013 *AOPA Pilot*). He has been flying the distinctive turboprop almost 25 years and is bullish on the marque. "The MU-2 is a great aeroplane. The structural integrity of the airplane is incredible," he said. "In my opinion there's nothing that will outperform it for the money you'll spend."

The model entices the person who wants to be a little different, and wants a little intrigue, Laver said. "We've got a whole new ownership now," with pilots moving up, investing in upgrades and proper training. "A lot of people make a showpiece out of a vintage car—[MU-2 owners are] making a showpiece out of their airplane, and getting immense pleasure out of it," he said. "Here it is now, an airplane that's recognized as one of the safest airplanes. And it's so much airplane for the money."

"When you buy this airplane, you're buying into the community as well," said North Carolina-based owner Craig Hili. "It's such a great group of people. Everybody is always available and everybody is trying to help. That's something you can't buy."

"The unintended effects of SFAR 108 have been so positive for this community," said Ken Sutton of Barrington, Illinois. "What's left is a community of guys that truly love their airplanes, like I do." The safety records of other high-performance GA aircraft could benefit from following the MU-2 model, he added. **AOPA**

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NEIL AND NAT HANNEWYK

Neil Hannewyk and his son Nat operate an MU-2 for their industrial coatings business in southwestern Michigan. The company bought a new Piper Cheyenne II XL, and then flew a Piper Seneca for almost nine years before buying the MU-2 in 1993. Since purchasing the airplane, they've painted it, put in a new interior, and updated the avionics. "We've flown as high as maybe 250 hours a year, and as low as 50," Neil Hannewyk said. "It's basically a business tool. In the industrial coatings industry, a lot of our customers are not near major airports." They can load it up with tech reps, salespeople, and samples. "We can get anywhere east of the Mississippi on a moment's notice."

Their purchase was well before SFAR 108, when the airplane had a checkered reputation. Neil said he talked to a lot of people and learned it came down to training. At that time, simulator training taught aircraft systems. "They said if you want to learn how to fly the airplane, go to Reece Howell." He purchased the airplane and trained at Howell's Howell Enterprises in Smyrna, Tennessee.

Nat transitioned to the MU-2 from the Seneca, and credited good instruction for his smooth transition. "A lot of guys move up into these faster planes and start playing with all the toys. [My instructor] reminds me to fly the airplane first." The Mitsubishi is much better at topping and avoiding weather, he added, and it's great to be able to climb on one engine. "I've always liked landing the MU-2. It's a little different than flying a Seneca or something with a little more wing on it."

Most of the Hannewyks' trips are nonstop, averaging 400 nm and less than two hours; typically with four people. "We go to the Carolinas; Georgia; out to Springfield, Illinois. It's very nice to have this aircraft to go across Lake Michigan," Neil said.

NAT AND NEIL HANNEWYK