

PILOT PRODUCTS



FIRST LOOK

NON-TSO AVIONICS APPROVED

FOR THE FIRST TIME, the FAA has approved non-TSO avionics as primary flight instrumentation in a Standard-category airplane from the factory. CubCrafters has the FAA's blessing to install Garmin G3X avionics suites in its factory-built XCubs, and it's already doing so for its 2018 model year. The touchscreen G3X PFD/MFD (along with digital autopilots) are approved under a first-of-its-kind amendment to the XClub type certificate.

AOPA has long advocated wide approval of safety-enhancing, innovative, and economical non-TSOed avionics across the broad GA fleet. Previously, non-TSO avionics (such as Dynon's D10A and Garmin's G5 electronic flight instruments) have only been approved through supplemental type certificates on individual aircraft models.

CubCrafters has installed hundreds of Garmin G3X avionics suites in Carbon Cubs flown under Light Sport and Experimental rules. But FAA approval to put the powerful, relatively low-cost G3X systems in Standard-category airplanes opens the door to aircraft and avionics manufacturers to install similar non-TSO avionics in new airplanes, as well as the existing fleet of legacy aircraft.

The FAA has shifted to what it calls a "risk-based" certification philosophy in evaluating new technology, and it has apparently concluded that the G3X system is safer than the mechanical attitude instruments that preceded it.

The G3X shows aircraft attitude information as well as GPS-derived "synthetic vision"; an angle-of-attack indicator; and a moving map with weather, terrain, and traffic warnings. It also can drive a digital autopilot with a one-touch "level" button. (Optional features include remote radios, ADS-B In and Out, and a remote transponder.)

"We believe the added capabilities and valued offered by this new panel are game changing," said CubCrafters President Randy Lervold. —*Dave Hirschman*

A fun way to learn

IFR mastery from PilotWorkshops

BY DAVE HIRSCHMAN

MY INQUISITORS were a formidable group. There was a former airline chief pilot; two FAA designated pilot examiners; a retired air traffic controller; and an aviation author whom PilotWorkshops, an aviation education firm, brought together to examine a detailed series of IFR flying scenarios.

Sadly for me, all these accomplished aviators disagreed with my conclusion for the scenario I was assigned, and they made no secret of their readiness to pounce.

"Just so you know, I'm going to come after you on this one," Bob Nardiello, a gruff FAA designee and former Flight Instructor of the Year, told me over coffee that morning. "You're going to be all alone on this one, so be ready for the pushback."

Their criticisms would be recorded as part of PilotWorkshops' online "IFR Mastery" series and heard by tens of thousands of fellow aviators. The Nashua, New Hampshire-based firm has developed an online following of more than 180,000 for its subscription IFR Mastery series, as well as free weekly flying tips delivered by email.

Despite the adversity, or perhaps because of it, I was looking forward to the verbal rough and tumble. It started jovially enough with all of us seated around an

actual round table in a recording studio outside Nashua. The IFR scenarios are meant to draw attention to aviation's many gray areas not clearly addressed by regulations.

Mine involved a Lancair Legacy pilot flying VFR in clear air over an area of known icing in Ohio on the way to the East Coast. He must decide whether to climb to 13,500 feet without oxygen to stay clear of clouds and continue, or divert to areas reporting better weather. (FAR 91.211 allows climbing to 14,000 feet in nonpressurized airplanes for up to 30 minutes without oxygen.)

I turned out to be the only one on the panel who thought climbing and continuing the trip was a reasonable choice, and defended that position as well as I knew how. But the other panelists had some well-informed reasons to disagree.

Hear how this, and scores of other thought-provoking scenarios, played out online (www.pilotworkshop.com/ifrmastery). It's a lively, convenient, and fun way to learn.

COST: \$199 to start; \$29 per month

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