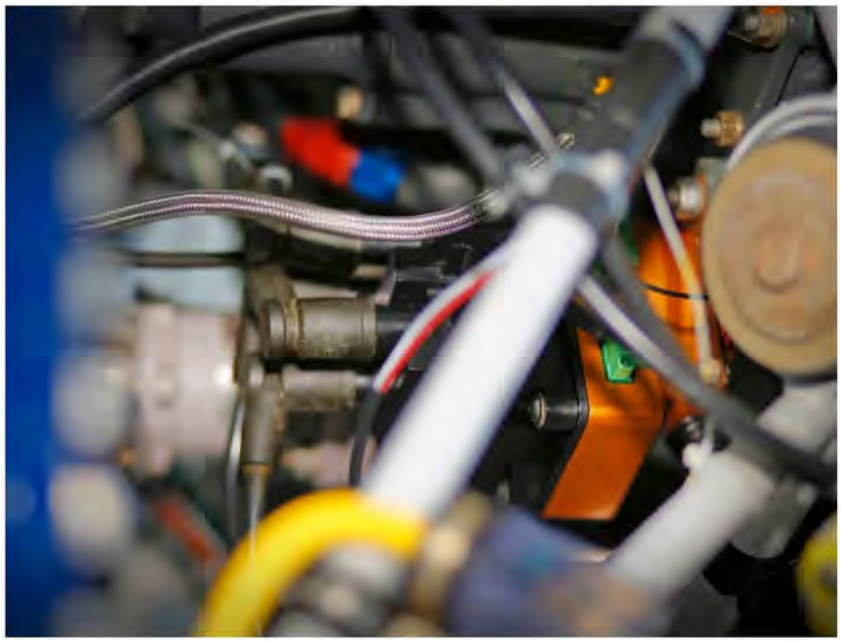
**OPINION**

# Safety continuum

## The Friendlies are remarkably friendly to Part 91 folks

BY MIKE BUSCH



**AIRCRAFT OWNERS AND PILOTS** love to bash the FAA. We grumble and whine about all the labyrinthine regulations and requirements the agency burdens us with, and how much it increases our complexity and cost of flying. I'm occasionally guilty of this myself.

In truth, we Part 91 operators have it pretty darn good compared with our brethren in almost every other nation on the planet. We also have it exceptionally good compared with charter operators (Part 135) or air carriers (Part 121) or large aircraft in noncommercial operations (Part 125).

This isn't by accident. It's in accordance with one of the FAA's most fundamental guiding principles—something the agency polysyllabically calls the "Safety Continuum." The FAA defines the safety continuum as "The level of safety established by regulation, guidance, and oversight that change based on risk and societal expectations of safety. The safety continuum applies an appropriate level of safety, from small UAS to large Transport category aircraft. The differing level of safety balances the needs of the flying public, applicants, and operators while facilitating both the advancement of safety and the encouragement of technological innovation."

Simply stated, this says that although the FAA's primary job is to ensure aviation safety, it recognizes that different kinds of aircraft and operations require different levels of safety. Aircraft that carry lots of people need to be safer than ones that carry just a few people (like the ones most of us fly), and those need to be safer than unmanned aircraft systems that don't carry any people. Public common carriers (e.g., airlines) need to be safer than contract carriers (e.g., charters), and those need to be

safer than private operators (e.g., general aviation pleasure or business). Pretty commonsense stuff.

Most of us know that the operating rules are far more stringent for commercial operations under Part 135 or Part 121 than they are for us Part 91 folks. Aircraft equipment and operating limitations, weather requirements, fuel requirements, crewmember qualifications, and recurrent training and testing requirements (including checkrides and drug tests) are all vastly more demanding than what we put up with. Less well understood are the dramatic differences in maintenance requirements.

**FAA MAINTENANCE REQUIREMENTS**

Although the regulations concerning what maintenance is required are complicated and somewhat obscure, the basics are straightforward:

Part 121/135 operators are required to comply with both the inspection program and the maintenance program recommended by the aircraft manufacturer (or alternative FAA-approved inspection and maintenance programs).

Part 91 operators of multiengine turbine airplanes or large airplanes (over 12,500 pounds) are required to comply with the inspection program recommended by the aircraft manufacturer (or an alternative FAA-approved inspection program) but are not required to follow any particular maintenance program.

Part 91 operators of piston or single-engine turbine airplanes (12,500 pounds or less) are not required to follow any particular inspection or maintenance program. They require only a generic annual inspection every 12 months. (If the aircraft is used to carry passengers for hire or to give flight instruction for hire, it also requires generic 100-hour inspections.)

To understand what this means, it's important to understand the distinction between an inspection program and a maintenance program. This can get a bit confusing, because FAR 1.1 defines maintenance as "inspection, overhaul, repair, preservation, and the replacement of parts, but excludes preventive maintenance." Thus, inspection is one sort of maintenance, but the regs never explain what inspection means. To unravel that, you must drill down into some rather obscure FAA orders, interpretations, and memoranda.

Particularly illuminating is a 2017 FAA national policy notice titled "Clarification of Inspection and Overhaul Requirements Under Part 91," which has since been incorporated into FAA Order 8900.1 (Volume 3, Chapter 15, Sections 1 and 2). This memorandum was intended for FSDO airworthiness safety inspectors, but it makes illuminating reading for owners of Part 91 aircraft and the A&P mechanics who work on them. Here are a few excerpts from the policy:

- *Inspections are generally visual examinations and/or manual checks to determine the condition of an aircraft, product, or article.*
- *Inspection programs refer to a list of scheduled inspection items accomplished at defined intervals, whose main purpose*

*is to determine the condition of the aircraft and its components (e.g., airframe, engines, propellers, rotors, appliances, survival equipment, and emergency equipment) to ensure continued serviceability.*

- *An inspection program should not be confused with a maintenance program. An inspection program will capture a list of scheduled inspections which are completed at designated intervals. A maintenance program should encompass all the elements of maintenance, to include inspections, overhaul requirements, repair schemes, [corrosion prevention], and the scheduled replacement of parts.*
- *Since Part 91 operators are not required to comply with a manufacturer's entire maintenance program, overhauls are not mandatory for Part 91 operators who operate strictly under Part 91 (with some possible exceptions for Part 91 subpart K) in most situations....[T]he definition of maintenance "...means inspection, overhaul, repair, preservation, and the replacement of parts, but excludes preventive maintenance." In the definition, overhaul and inspection are separate elements, which shows that they are both unique forms of maintenance. Overhauls are a maintenance process.*
- *Part replacement is a part of the overall maintenance program and should not be included in an inspection program [unless the inspection destroys a part, such as cutting open an oil filter].*
- *With some exceptions...compliance with manufacturer service bulletins is not required to be accomplished on any specific timetable for Part 91 operators.*

So, if you fly a Part 91 piston airplane or a single-engine turboprop or jet, you don't have to comply with any of the manufacturer-specified inspection or maintenance intervals if you don't want to. If you fly a multiengine turbine (such as a Beechcraft King Air or Cessna Citation) or a large airplane (such as a Douglas DC-3) under Part 91, you are required to comply with the manufacturer's inspection program (typically consisting of various phase checks) but you don't have to comply with the manufacturer's maintenance program (including TBOs and scheduled parts replacement) if you don't want to. For any kind of Part 91 aircraft, you don't have to comply with manufacturer's service bulletins.

There are a few exceptions. If the FAA issues an airworthiness directive mandating compliance with some manufacturer-specified inspection or maintenance item or service bulletin, then you must comply—ADs are nonnegotiable. Also, if you fly a newfangled Part 23 aircraft, such as a Cirrus or Diamond or Corvalis/TTx, whose maintenance manual contains an FAA-approved airworthiness limitations section, then you must comply with anything in that section—such as the 10-year chute repack and rocket refit for the Cirrus SR22—provided it was in effect on the date your airplane rolled off the assembly line. (Revisions to the maintenance manual are not retroactively compulsory for aircraft manufactured prior to the revision.)

**WHAT ABOUT ICA?**

In addition to the usual maintenance manuals, some aircraft, engines, propellers, and appliances may be subject to manufacturer-specified instructions for continued airworthiness (ICA). This sounds intimidating, and many owners and A&P mechanics believe that the regulations require ICA to be complied with. Not so.

The rules that govern Part 91 compliance with ICA are the same as the rules that govern maintenance manuals, service bulletins, and other manufacturer-specified maintenance guidance. If you fly a Part 91 King Air or Citation or DC–3, you're required to follow any inspections set forth in applicable ICAs, but not any other sort of maintenance (such as overhauls or parts replacement). If you fly a Cessna Skyhawk, Cirrus SR22, Beechcraft Baron, or Daher TBM, you don't have to comply with ICAs at all—unless an ICA contains an FAA-approved airworthiness limitations section (most don't), in which case you are required to comply only with what's in that section.

Please don't get the idea that I'm suggesting you ignore all manufacturer's inspection and maintenance recommendations. Some things the manufacturers instruct us to do are sensible and worth doing; others are unnecessary overkill. The important takeaway is that the FAA says that almost all the maintenance tasks the manufacturers recommend—inspection checklists, TBOs, preventive maintenance, parts replacement intervals, ICAs—are not requirements for Part 91 operators. It's the aircraft owner's prerogative to do them or not as he or she sees fit.

The FAA takes a remarkably lenient posture when it comes to maintenance requirements for Part 91 aircraft. I know of no other nation that gives this much latitude to owners of small noncommercial aircraft. Is it any wonder that GA in the United States is so much more robust and affordable than anywhere else on Earth?

Thank heaven for the FAA's safety continuum philosophy. Let's give the Friendlies credit where credit is due. **AOPA**

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