

By Richard Scarborough



MAJOR UPDATE TO AIRCRAFT RECORDS AC

WHAT TO KNOW ABOUT THE PROPOSED CHANGES.

Aircraft maintenance is a broadly defined term involving the care and keeping of aircraft. The industry continues to develop best practices, and maintenance tactics evolve directly proportional to aircraft developments. Accurately documenting such actions is not to be taken lightly. It is often

jested among maintainers that eventually, one would need to operate two aircraft in tandem; one to fly passengers and cargo and the other to haul all the airworthiness paperwork.

Aircraft maintenance record-keeping is a serious business. During my MRO ownership stint, the Feds spent almost the entire annual inspection visit pouring over work orders, looking for non-compliance. Only when satisfied that the paperwork was in order, would they take a lap around the shop. While conducting this portion of the inspection, they typically looked for tool calibration

labels, correctly identified aircraft parts and appropriate repair station-specific signage. The question of workmanship rarely entered the conversation. They stuck to their checklist and ticked off each block unless they received a formal complaint.

I say this not to cast shade on FAA inspectors but to highlight how vital record-keeping is to aircraft safety. After an accident or incident, inspectors will review the aircraft's logbooks, maintenance records, and airworthiness information. Refer to Section 7. Safety, Accident, and Hazard Reports of the Aeronautical Information Manual (AIM), in which the Federal Aviation Administration (FAA) aircraft safety includes maintenance and record-keeping.

AC 43-9C - Maintenance Records

The FAA issues Advisory Circulars (AC) to inform the aviation public systematically of nonregulatory material. Unless

incorporated into a regulation by reference, the contents of an advisory circular are not binding on the public.

Advisory circulars are issued in a numbered subject system corresponding to the subject areas of the Code of Federal Regulations (CFR) (Title 14, Chapter 1, FAA). In other words, ACs keep the public informed concerning FAA rules and regulations. And they are plentiful.

AC43-9C, entitled Maintenance Records, is up for revision even after receiving two change notices during its tenure:

- Change one, issued on April 7, 2017, simply clarified regulatory references.
- Change two, issued on May 8, 2018, updated paragraph 15 by adding maintenance manuals to the list of documents containing aircraft/powerplant part life limits and reorganized the table in Appendix 1, Airworthiness Directive Compliance Record (Suggested Format).
- Revision D will be the first significant overhaul of the AC since its inception in 1998.

The FAA granted an extension to October 18, 2024, for comments on the Advisory Circular AC No: 43-9D. Currently in draft mode, this latest revision would replace AC43-9C, published on June 8, 1998. The Feds use comment periods to get public input on various issues.

The FAA Flight Standards Service, updated September 11, 2024, provides details on the AC revision, including 1) a summary, 2) a list of references, 3) documents for downloading, 4) a comment portal, and 5) related information.


At first glance, the FAA may need to catch up on aircraft record-keeping. However, aviation maintenance is making great strides in advancing electronic records, artificial intelligence (AI), and predictive maintenance. With advancements moving at unprecedented speed, updating maintenance records is timely.

The draft of AC43-9D, Maintenance Records, describes acceptable methods, procedures, and practices for demonstrating compliance with General Aviation (GA) maintenance record-making and record-keeping. Why is that important? We shall discuss that shortly. At first glance, you will notice that Rev D weighs in at a hefty 20 pages compared to the 12 pages of Rev C.

I spoke with Ian Gregor, a public affairs specialist at the Office of Communications for the FAA, who stated, "This is a draft document for public comment. We can respond to questions about the document when we finalize it." Once the public comment period closes, the FAA reviews those comments, taking the industry's thoughts into consideration. When asked about the period between closing the comments and the AC going live, Gregor responded, "It takes time for us to review, respond to, and possibly make changes as a result of comments we receive before finalizing an AC." We agreed to reconnect after the new revision goes live.

Ric Peri, vice president of government and industry affairs for the Aircraft Electronics Association (AEA), shares his thoughts

"DRAFT"

 **U.S. Department of Transportation
Federal Aviation Administration**

Advisory Circular

Subject: Maintenance Records **Date:** DRAFT **AC No:** 43-9D
Initiated by: AFS-300 **Change:**

1 PURPOSE OF THIS ADVISORY CIRCULAR (AC).

1.1 Recordkeeping. This AC describes methods, procedures, and practices that have been determined to be acceptable means of showing compliance with the General Aviation (GA) maintenance record-making and recordkeeping requirements of Title 14 of the Code of Federal Regulations (14 CFR) parts 43 and 91. The contents of this document do not have the force and effect of law and are not meant to bind the public in any way, and the document is intended only to provide information to the public regarding existing requirements under the law or agency policies.

1.2 FAA Form 8130-3. This AC also discusses the procedures for the use of Federal Aviation Administration (FAA) Form 8130-3, Authorized Release Certificate, Airworthiness Approval Tag, for approval for return to service under part 43.

Note: Except for FAA Form 8130-3, the information in this AC does not apply to air carrier maintenance records made and retained in accordance with 14 CFR part 121.

2 AUDIENCE. The audience of this AC is persons authorized by part 43, § 43.7(b)-(c) to approve aircraft engines, propellers, appliances, or component parts for return to service after maintenance, preventive maintenance, or alteration; and FAA personnel tasked with the review and oversight of said entities.

3 WHERE YOU CAN FIND THIS AC. You can find this AC on the FAA's website at https://www.faa.gov/regulations_policies/advisory_circulars and the Dynamic Regulatory System (DRS) at <https://drs.faa.gov>.

4 WHAT THIS AC CANCELS. AC 43-9C, Maintenance Records, dated June 8, 1998, is canceled.

5 RELATED REGULATIONS. Title 14 CFR parts 1, 43, 65, 91, and 145.

6 DISCUSSION.

6.1 Terms and Conditions for Airworthiness. Title 14 CFR states that a U.S. Standard Airworthiness Certificate is effective until it is surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator. In addition to those terms, a U.S. Standard Airworthiness Certificate is effective only as long as the maintenance,

on the proposed revision, stating, "The current AC 43-9 has never been complete or either regulatory requirement, 43 or 91." Even in 1998, AC43-9 lacked clarification on critical aspects of aviation maintenance.

Sarah MacLeod, executive director of the Aeronautical Repair Station Association (ARSA), and I sat down to discuss Rev D. Her initial thoughts concerning the FAA's revision were, "The FAA is using this update to move the information currently contained in Order 8130-21 for maintenance providers. This AC will now contain the information for completing that form."

Sarah is speaking of the AC introducing procedures for completing FAA Form 8130-3, Authorized Release Certificate, and Airworthiness Approval Tag for approval for return to service under part 43. Sarah and I highlighted that the 8130-3 tag is typically completed by the type certificate holder on the left side or returned to service by a Part 145 Certified Repair Station on the right. She also commented that completing the FAA Form 8130-3 is in the AC, not Order 8130.21. The 8130-3 tag has been in play for quite a while. The FAA is taking this opportunity to include language to aid in completing the form. It is important to note that every 8130-3 tag accompanying parts and components to the airplane becomes part of the aircraft record. In its publication Common Logbook Mistakes, Business Aircraft Records lists Not Including the FAA Form 8130-3 Approval Tag with the Logbook Entry When Components are Changed as one of the

common errors. The 8130-3 is strikingly similar to the EASA Form 1, thereby ensuring continuity among component airworthiness recording and part traceability.

MacLeod goes on to say that the AC needs to adequately address roles and responsibilities. For example, 90% of the AC deals with 14 CFR Part 91 General Operating and Flight Rules, as opposed to 14 CFR Part 43 Maintenance, Preventative Maintenance, Rebuilding, and Alteration.

Peri echoes that sentiment. He states, "The major change is specific to part 43 in that the FAA has included expensive instructions on using FAA form 8130-3. Opening up this AC for comment is generating a proposal to separate the part 43 maintenance records (combining AC 43-9 and 43.9-1) from creating a new part 91 record-keeping AC specific to the requirement of part 91. This concept will better differentiate the two regulatory requirements."

Another addition to Rev D is section 22.2, Information Systems and Automation. The FAA introduces language stating, "With advances in technology, the collection of the form data can be generated electronically in a variety of ways and then be stored that way." They also mention AC120-78, Electronic Signatures, Electronic Recordkeeping, and Electronic Manuals, which provide guidance that may be useful in developing such a system. This is a step forward in electronically recording maintenance, paving the way for predictive maintenance and, eventually, the use of artificial intelligence (AI). For further information on AI, check out the Aviation Maintenance article AI/ML is A-OK for aviation maintenance tracking and predictive maintenance published in March 2024.

Why Request an Extension for Comments?

With the added material comes increased responsibilities. Industry leaders felt the need for additional time to review the proposed changes. It is no secret that every time the FAA makes a change, the effects flow downstream, and everyone must comply. Ignorantia juris non excusat.

On August 9, 2024, eleven leading aviation trade organizations sent a letter to the FAA requesting additional time to comment on the Draft AC43-9D. The FAA quickly responded with an extension. (ARSA) published an announcement stating in part: This AC provides acceptable means of showing compliance with general aviation record-making and record-keeping requirements according to parts 43 and 91. Though not regulatory, it provides a method, not the only method, and the industry continues to push the FAA to carefully align its guidance with the regulations.

Some of the entities credited with the letter include, but are not limited to:

- Aeronautical Repair Station Association (ARSA)
- Aircraft Electronics Association (AEA)
- Aircraft Owners and Pilots Association (AOPA)
- General Aviation Manufacturers Association (GAMA)
- National Air Transportation Association (NATA)

The letter contains the complete list of those requesting the extension, and mentions form 8130-3 clarification, bilateral agreements, and maintenance implementation documents.

The entities mentioned above constitute only five of the industry leaders petitioning the FAA to extend the review period of AC43-9D. Please download the letter and keep a copy in your digital toolbox. These organizations work tirelessly to ensure safe and efficient operations. How important is their role, and does it

make a difference? I spoke with Suresh Narayanan, founder and CEO of Jets MRO at DFW, and his answer was an emphatic yes. After starting his business, Narayanan joined the National Business Aviation Association (NBAA). "By surrounding oneself with like-minded individuals, one has opportunities to gather good intel. The NBAA badge is a sign of respect for the company. Our industry's strength is the self-policing credibility. There is no fake it 'til you make it."

Organizations like ARSA, GAMA, and NBAA offer a place to gather and network with other aviation professionals. Actions like the letter mentioned above are just the tip of the iceberg. Advocacy is only effective in groups. There is indeed strength in numbers. Other benefits include safety workshops, industry panels, and focus groups. The industry used this extended time to investigate AC43-9D and review all the FAA's proposed changes.

What Does This Mean for the Aviation Industry?

When I asked AEA's Ric Peri what these changes mean for the aviation industry, he replied, "The proposed change is reasonably benign, mostly editorial changes." That said, it is crucial to understand what the FAA requires, especially in record-keeping. The 8130-3 does have particular nuances that maintainers need to understand. For example, Block 8. of the form, labeled Part Number, indicates the Type Certificate Holders' identifier for that component. This includes Parts Manufacturer Approval (PMA) parts, regardless of type. A specific instance occurs when an Identity by License PMA gives the manufacturer authority to produce and distribute parts that replace original equipment manufacturer (OEM) parts. The replaced part or specification can be referenced in Block 12. of the 8130-3 labeled Remarks. Block 12. can also include information such as technical publications, Supplemental Type Certificates (STC), Engineering Orders (EO), or other specific documented maintenance references.

Sarah MacLeod and I also discussed the revision and its ramifications for owner/operators and pilots. She mentioned, "The average pilot needs to understand the requirements of part 91—this AC currently contains that information. It is not the mechanic's job to ensure maintenance records are complete; it is the owner/operator's responsibility. That fact is not understood by many pilots who own and operate their aircraft."

The industry group working on the issue will propose to separate the requirements for maintenance providers to complete maintenance and inspection records correctly from the information owners and operators of aircraft subject to part 91, which are required to obtain, maintain, and make available to the government. In other words, AC 43-9 would be directed solely at the maintenance providers' requirements of part 43, and a new AC would be directed at part 91 records. The bottom line is this revision principally deals with the guidance of the FAA 8130-3 form and language concerning electronic record-keeping.. Many Certified Repair Stations have already deployed the 8130-3, and many more have adopted electronic records. The FAA has simply updated AC43-9 to bring it current with standard industry practices.

Now that the comment period is closed, the industry will follow the pattern as the FAA collects, reviews, and determines appropriate action for the intel it gathered. In many ways, aviation maintenance has come a long way since the first version of AC 43-9 launched on February 2, 1975, but the bottom line remains the same: Document what you do, nothing more, nothing less. **AM**