

# **BUSINESS AIRCRAFT RECORDS**

## **EDUCATIONAL PROGRAM**



**A Better Understanding of Business Aircraft Documents and  
Recordkeeping**

# The Foundation for Business Aircraft Records Excellence

## Educational Program

Business Aircraft Records educational courses are designed to help aircraft maintenance personnel from students to seasoned professionals better understand the documents we use every day in Business Aviation.

BAR's courses are FAA focused. Our courses draw from information in the *Aircraft Maintenance Technician Handbook*: FAA-H-8083-30A, Chapter 2; from the *Aviation Mechanic General, Airframe, and Powerplant* - Airman Certification Standards, FAA-S-ACS-1; and ...

from the *real world experience* of BAR's team of aircraft maintenance professionals with a combined experience of over 200 years in business aircraft maintenance and operations.

# **Business Aircraft Records**

## **Aircraft Documents Specialist Program**

### **Overview**

A thorough understanding of aircraft records and documents is imperative in today's world of aircraft operations. Business Aircraft Record's Certified Aircraft Documents Specialist program specializes in equipping today's Aircraft Maintenance Professional with the knowledge needed to become a leader in this industry; understanding the documents our industry uses every day in the specialized field of aircraft maintenance.



### **Objective**

To become a Certified Aircraft Documents Specialist; you must complete all ten (10) of Business Aircraft Record's courses; demonstrating a thorough understanding of these documents, their use in our industry, and how and where to look up information when necessary.

# Business Aircraft Records

## Courses Available

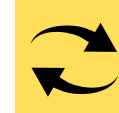
- The Importance of Aircraft Records
- Maintenance Records and Documentation
- Title 14 CFR Parts 43.9 and 43.11 Logbook Entries and Return to Service Requirements
- Certificate of Airworthiness and 8130-3 Airworthiness Certificates
- 8110-3 and 8100-9 Data Approval
- TCs, STCs, Form 337s, and ICAs
- Excessive or Unnecessary Information
- Task Cards, EOs, and SRM References
- AD Notes, SBs, ASCs and Modifications
- Electronic Aircraft Records

## Platform Features



### Video Discourses

Lectures organized through virtual reality presentations using graphics and illustrations.



### Interactive Features

Multiple choice quizzes with materials and knowledge examinations ensure comprehension.



### Textbook Learning

Complete with easy to understand examples and explanations.



### Certification

Demonstrating knowledge to employers and other stakeholders.





# The Importance of Aircraft Records



## Overview

Aircraft maintenance records, often referred to as logbooks, contain the complete maintenance history of an aircraft. Their purpose is to document that the aircraft meets its approved type design and is in a condition for safe operation. They both back-up and support the Airworthiness requirement the aircraft needs to be able to fly, and document the aircraft's maintenance activities over its lifetime.

Logbooks have a tremendous impact on an aircraft's value because they contain important information about the history of the aircraft.

You would think that today's high-tech, sophisticated aircraft would have high-tech, sophisticated records knowing that the maintenance history of an aircraft is almost as important and valuable as the aircraft itself.

But when looking at even a modern aircraft's record, we find a common trend: aircraft logbooks are typically unorganized, frequently inaccurate, and regularly lack critical information vital to the aircraft's airworthiness or value.

# The Importance of Aircraft Records



## Objective

The objective of this course is to better understand aircraft records and recordkeeping; their purpose; the consequences of improper record keeping for aircraft owners; what happens when the data in the record is insufficient, or one or more records are missing from the logbook; or even when critical information is lost altogether or not recorded properly to begin with.

The course goes into an in-depth study of what is important to keep in the aircraft logbook. What should be in the logbook as opposed to being part of the permanent maintenance record; where in the logbook the information should be kept; and how to properly organize and administer information contained in both the aircraft's logbooks and/or the permanent aircraft record.

## Applicability

This course will benefit A&P Technicians and Students, Repair Station Technicians, Repairmen, and anyone needing a better understanding of aircraft records or are contemplating working with aircraft records in the future.

# Maintenance Records and Documentation



## Overview

The aviation maintenance records and documentation requirements of Title 14 of the Code of Federal Regulations (14CFR) are extremely important to know and understand for anyone involved in aircraft maintenance.

Part 91 General Operating and Flight Rules regarding an aircraft's maintenance, and what constitutes an Airworthy aircraft, affect every aircraft mechanic, owner, and pilot-in-command of any U.S registered aircraft. These rules apply whether the aircraft is operated under Part 91, 125, or 135 regulations.

Knowing these rules and regulations is an important part of maintaining and operating these aircraft. With respect to the documents and records of the aircraft: the difference between these being handled correctly and handled incorrectly can not only mean the difference between the aircraft being Airworthy and at its best value, or not airworthy and of negligible value; it can also mean a productive and successful aviation maintenance career; or fines, imprisonment, loss of license, or even worse.

# Maintenance Records and Documentation



## Objective

The objective of this course is to gain a better understanding of the maintenance records and documentation required to operate a U.S. registered aircraft. A thorough knowledge of these requirements can be of great benefit when having to make a critical or airworthiness decision regarding an aircraft under your authority.

## Applicability

This course will benefit A&P Technicians and Students, IA's, Repair Station Technicians and Inspectors, Repairmen, and anyone needing a better understanding of aircraft maintenance records and documentation.



# Title 14 CFR Parts 43.9 AND 43.11 Maintenance Entries and Return to Service Requirements



## Overview

Logbook entries when done properly, describe work accomplished on the aircraft, convey critical information about the aircraft's airworthiness, offer protection for the individual or company accomplishing the work, and allow for the legal (FAA Sanctioned) Return to Service of the aircraft if found to be Airworthy.

Title 14 CFR Parts 43.9 and 43.11 both have a specific purpose in accomplishing this work.

Both sections require their own unique language for signing-off the work in accordance with the applicable event. And both specify who is authorized to undertake the work, what constitutes a proper sign-off, and the type and content of the maintenance entry to be entered into the aircraft's permanent maintenance record.

Consequently, it is essential to know how to create a correct and accurate Title 14 CFR Part 43.9 or 43.11 Entry and Return to Service document as well. Your living and the life it affords you may depend on it.



# Title 14 CFR Parts 43.9 AND 43.11 Maintenance Entries and Return to Service Requirements



## Objective

The objective of this course is to better understand Title 14 CFR Parts 43.9 and 43.11, and to distinguish the difference between them.

The course goes into an in-depth study on what is to be included in a complete and accurate 14 CFR 43.9 or 14 CFR 43.11 maintenance entry, who is authorized to accomplish work delineated, and the information that must be included in the entry, along with a proper Return to Service approval.

## Applicability

This course will benefit A&P Technicians and Students, IA's, Repair Station Technicians and Inspectors, Repairmen, and anyone needing a better understanding of aircraft logbook entries and Return to Service approvals, or are contemplating creating an aircraft logbook entry in the future.

# Certificate of Airworthiness and 8130-3 Airworthiness Certificates



## Overview

An aircraft's Certificate of Airworthiness and an 8130-3 Airworthiness Certificate are different things, but both have one thing in common ... Airworthiness.

With respect to Certificates of Airworthiness: what type of Certificates of Airworthiness are their? What is the purpose of each? When are they used?

And when it comes to 8130-3s: there is a tremendous amount of information and specialized areas of training for FAA Form 8130-3 Airworthiness Tags (including FAA Order 8130.21H); but, the aviation community continues to misunderstand and misclassify these very important documents.

It's imperative that the aviation maintenance professional has a good understanding of what both of these type of documents are used for and why.

# Certificate of Airworthiness and 8130-3 Airworthiness Certificates



## Objective

The objective of this course is to better understand Certificates of Airworthiness and 8130 Airworthiness Certificates as they apply to both aircraft and parts. What their purpose is, how they fit into the overall operation of an aircraft, and where they should be kept and/or displayed.

This course takes a look at both types of documents to gain a better understanding of why each one is important to the aircraft, its operation, and the technicians involved.

## Applicability

This course will benefit A&P Technicians and Students, Repair Station Inspectors, Repairmen, and anyone needing a better understanding of Certificates of Airworthiness and 8130 Airworthiness Certificates.

# 8110-3 and 8100-9 Data Approval



## Overview

Forms 8110-3 and 8100-9 titled *Statement of Compliance with Federal Aviation Regulations*: an A&P technician can spend their whole career working on aircraft and never encounter either one these documents. But if one is needed for a project on an aircraft, the documents, and what they represent, are critically important.

Whenever a major repair or alteration occurs on an aircraft, a Form 337 is utilized. The 337 (and the aircraft repair or alteration) will both require some sort of FAA approved Reference Data in which to support the modification.

If a repair or alteration is beyond the scope of the aircraft's SRM, then engineering will be required. This is where Form 8110-3 and/or 8100-9 come in.



# 8110-3 and 8100-9 Data Approval



## Objective

The objective of this course is to better understand Forms 8110-3 and 8100-9, and to be able to determine which document is to be used to support the modification; who can issue the document; and what needs to be addressed in each document.

Additionally, we'll cover how these documents should be handled; what happens with the documents once they're employed; and where these documents should reside in an aircraft's permanent record.

## Applicability

This course will benefit A&P Technicians and Students, Repair Station Technicians, Repairmen, Designated Engineering and Airworthiness Representatives, aircraft engineers and anyone needing a better understanding of using or working with FAA Forms 8110-3 or 8900-1 Data Approval documents.



# TCs, STCs, Form 337s and ICAs



## Overview

Whether it's the original Type Certificate for the aircraft; a Supplemental Type Certificate issued after the original TC; the accomplishment of a Major Repair or Alteration; or simply the addition of a PMA part: chances are good that an Instruction for Continued Airworthiness (ICA) will be generated as a result. Unfortunately, many of these ICAs are often lost or ignored all together by maintenance personnel assembling the aircraft's paperwork after the modification is complete and never integrated with the aircraft's maintenance program.

Regrettably, the result is that many aircraft are lacking vital inspection information they are required to keep in order to maintain the airworthiness of the product for its intended lifetime, and in the majority of cases ... the aircraft itself.

# TCs, STCs, Form 337s and ICAs



## Objective

The objective of this course is to better understand the relationship and importance of the aircraft's original Type Certificate and the on-going maintenance and modifications a typical aircraft experiences in its lifetime. This information forms the basis for the requirement to document and amend awareness to the aircraft, or any of its systems, affected by the change.

This course covers normal aircraft modifications including: TCs, STCs, Form 337s, and ICAs; and how this documentation is to be handled and administered for the life of the aircraft.

## Applicability

This course will benefit A&P Technicians and Students, Repair Station Inspectors and Technicians, Repairmen, and anyone needing a better understanding of TC's, STCs, Form 337s, and other modifications; and the requirement of integrating the resultant ICAs into the aircraft's maintenance program.

# Excessive or Unnecessary Information



## Overview

Although the requirements for airworthiness information on an aircraft are clearly stated in 14CFR; excessive and unnecessary information is the most common violation of these requirements. When too much unimportant information is incorporated into the aircraft's logbook, it makes finding the important information that much more difficult.

Adding to this issue is the fact that many A&Ps and other maintenance personnel don't really know just what is required to be retained in an aircraft's logbook and/or permanent record in the first place.

Information required by Title 14 CFR and vital to the aircraft's airworthiness is therefore often found to be:

1. Haphazardly placed in any number of different areas in the record.
2. Missing or never placed into the record to begin with.
3. Buried in a massive amount of additional information that is unnecessary.

# Excessive or Unnecessary Information



## Objective

The objective of this course is to better understand the problems created by excessive and/or unnecessary information in an aircraft logbook. What information is required to be included in a logbook; is vital for the aircraft's Airworthiness; and how this information is crucial in valuing an aircraft for sale.

## Applicability

This course will benefit A&P Technicians and Students, Repair Station Inspectors, Repairmen, and anyone needing a better understanding of what is required to be in an aircraft's logbook and/or permanent record.



# Task Cards, EOs, and SRM References



## Overview

**Task Cards.** One of the most utilized, yet misunderstood tools we have when accomplishing an inspection or repair to an aircraft. Task cards are invaluable for proving that the work accomplished on the aircraft was done correctly. Other instructions delineating work that needs to be accomplished correctly to an aircraft can be found in the aircraft's SRM Manual or by Engineering Order (EO).

Although the SRM and EOs from aircraft OEMs and Engineering firms have been around since almost the beginning, the creation of the task card is relatively new in the world of aviation maintenance. Predating the task card is, of course, Title 14 CFRs. These sections specify what criteria is needed to constitute both a proper logbook entry, and a Return to Service of the aircraft after a maintenance event.

Most task cards generated to assist the technician performing the work on an aircraft DO NOT meet this criteria. Task Cards, like Engineering Orders and SRM Manual references, should be used just that way ... as data reference in the development of a legal Part 43 Maintenance (Logbook) Entry.



# Task Cards, EOs, and SRM References



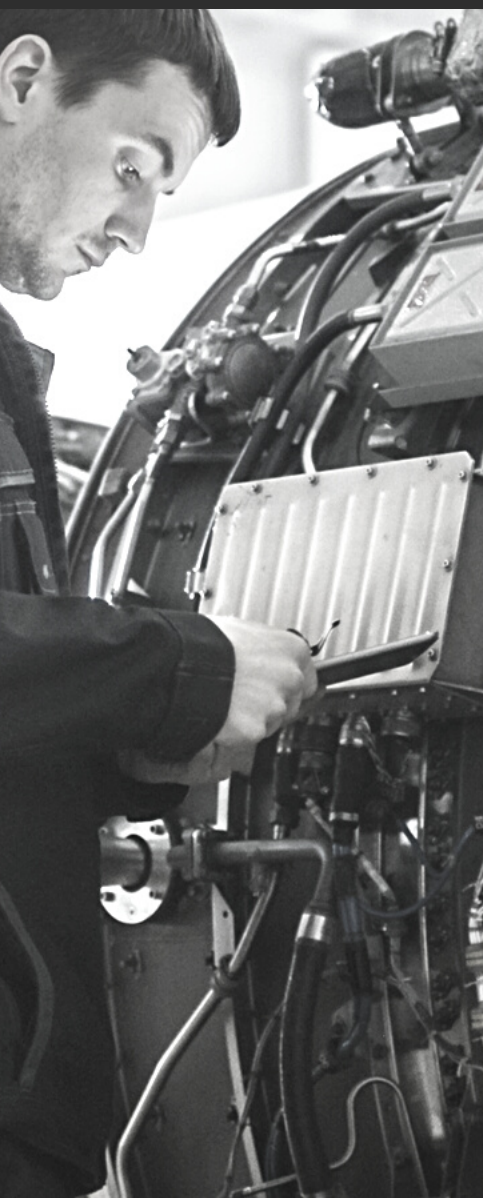
## Objective

The objective of this course is to better understand Task Cards, Engineering Orders, and SRM Reference data; and their relative importance to inspecting and/or repairing an aircraft. When this information is appropriate to use in logbook entries or a return to service document, and how it should be included in the aircraft's record.

## Applicability

This course will benefit A&P Technicians and Students, Repair Station Inspectors, Repairmen, and anyone needing a better understanding of the proper use of task cards and other reference data.

# Airworthiness Directives, Service Bulletins, Aircraft Service Changes, and Modifications

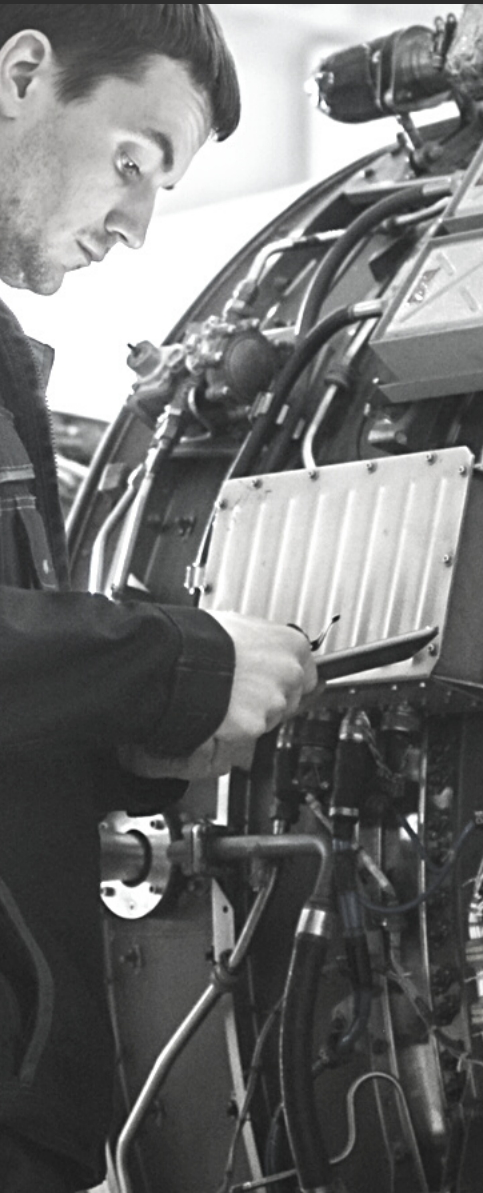


## Overview

Airworthiness Directives. It's enough to make your heart race and even ground an aircraft if you're not on top of it. But AD Notes are only part of an aircraft's continuing improvement program of Service Bulletins, Service Changes, and modifications which every A&P Technician, and in some cases, the aircraft owner or operator, should understand.

How to properly look-up and evaluate to see if the bulletin or modification not only applies, but would make a valuable contribution to the aircraft's operation or maintenance program is extremely important for the on-going operation of the aircraft.

# **Airworthiness Directives, Service Bulletins, Aircraft Service Changes, and Modifications**



## **Objective**

The objective of this course is to better understand Airworthiness Directives, Service Bulletins, and other directives and modifications; where to find AD Note information and how to determine if your aircraft is affected; how to look up and evaluate Service Bulletins and Service Changes; and how to properly record, display, and keep AD, SB, ASC and information in the aircraft's record.

## **Applicability**

This course will benefit A&P Technicians and Students and anyone needing a better understanding of the directives that affect an aircraft's maintenance and operation for the life of the aircraft.

# Electronic Aircraft Records



## Overview

Aircraft logbooks: they're usually found in paper form; in many cases are full of hand-written entries; are put together in various formats, shapes, and sizes; are often falling apart due to wear and tear; are typically unorganized and chaotic; are difficult to understand; and are often times missing critical information altogether.

But this shouldn't be the case. One easy way to overcome many of these limitations is to scan the original paper records; put them into a usable and understandable electronic format (in compliance with the FAA's guidance on electronic recordkeeping); make them searchable with an electronic search engine; and have them to use and have as a back-up for the life of the aircraft.

Or, even better, create an Electronic Record Keeping System for the aircraft and maintain this electronic record properly to avoid the many pitfalls encountered today with aircraft records.

# Electronic Aircraft Records



## Objective

The objective of this course is to get a better understanding of what is involved in developing an electronic back-up for an existing paper record or moving into a new Electronic Record Keeping System for your aircraft.

What the FAA's position is on Electronic Record Keeping; Electronic Signatures; and how a FAA sanctioned electronic records back-up can be used to replace a missing or damaged paper record when the need arises.

## Applicability

This course will benefit A&P Technicians and Students, Repair Station Technicians, Repairmen, and anyone needing a better understanding of electronic aircraft records or are contemplating establishing an Electronic Record Keeping System for their aircraft's maintenance records.