



Auditing Your Repair Station Training Program

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Agenda

- Auditing Your Repair Station Training Program
 - Review of the RSTP regulations, guidance and policy
 - Know what you committed to
 - Know what the FAA is looking for
 - Auditing your program
 - FAQ's

The Rule

- § 145.163 Training requirements.
 - (a) A certificated repair station must have an employee training program approved by the FAA that consists of initial and recurrent training. For purposes of meeting the requirements of this paragraph, beginning April 6, 2006—
 - (1) An applicant for a repair station certificate must submit a training program for approval by the FAA as required by § 145.51(a)(7).
 - (2) A repair station certificated before that date must submit its training program to the FAA for approval by the last day of the month in which its repair station certificate was issued.

- § 145.163 Training requirements.
 - (b) The training program must ensure each employee assigned to perform maintenance, preventive maintenance, or alterations, and inspection functions is capable of performing the assigned task.

- § 145.163 Training requirements.
 - (c) A certificated repair station must document, in a format acceptable to the FAA, the individual employee training required under paragraph (a) of this section. These training records must be retained for a minimum of 2 years.

- § 145.163 Training requirements.
 - (d) A certificated repair station must submit revisions to its training program to its certificate holding district office in accordance with the procedures required by § 145.209(e).

FAA Order 8300.10 Vol 2, Chapter 160

- “Once the FAA approves the repair station training program the repair station will begin to follow their approved procedure.”

What's Next?



Auditing Your Repair Station Training Program

- What the Inspector has been told.
 - FAA Policy
Airworthiness Inspector's Handbook,
 - Order 8300.10 , Chapter 160
 - Review and Approve a Part 145
Repair Station's Training Program

Airworthiness Inspector's Handbook: Objective

- This chapter (bulletin) defines the terms and requirements for approval of a repair station's training program under Title 14 of the Code of Federal Regulations (14 CFR) part 145 by the responsible aviation safety inspector(s) (ASI).
- This chapter (bulletin) also explains the policies and procedures applicable to repair stations of varying size and complexity.

Purpose

- The purpose of the training program is for the repair station:
 - To comply with the regulatory requirements of § 145.163;
 - To provide the training necessary for employees to perform their job functions efficiently, safely, and correctly; and
 - To familiarize employees with the repair stations manual, quality systems, and procedures.

Basic Format Requirements

- The RSM or Training Program Manual must include procedures required by the regulations for revising the training program.
- It must also include procedures for submitting those revisions to the certificate-holding district office (CHDO) for approval.

Basic Format Requirements

- The procedures should address how often the program will be reviewed to determine if it is current and adequate for the type of maintenance being performed at the facility.
- Because the advancements in technology can cause aviation maintenance to change rapidly, a periodic review of training needs would be appropriate.

Basic Format Requirements

- The procedures should include who will be responsible for planning recurrent training, and any new training that may be necessary.
- Repair stations that have established a management review program should include the training program for review during that meeting.

Basic Format Requirements

- The principal inspector (PI) must review the procedures in the certificate holder or applicant's program submission.
- These should not be considered all-inclusive.
- Each facility is unique and may require additional procedures to verify regulatory requirements and the needs of the repair station.

Basic Format Requirements

- Procedures may address the following:
 - Who in the repair station is responsible for submitting the initial training program and subsequent revisions to the FAA?
 - When will the revisions be submitted?
 - How will the revision be approved (include the company approval as well as FAA)?

Basic Format Requirements

- Procedures may address the following:
 - How often will the repair station review training program currency and completeness?
 - Who in the repair station will perform this review?

Basic Format Requirements

- Procedures may address the following:
 - How will the repair station record and implement revisions?
 - How will the revised text be identified and program materials updated?

FAQ: Manual Revisions

- **Question:** Must the RSTP manual contain the revision criterion for revising the RSTP?
- **Answer:** No, the RSTP manual may contain the revision procedures in lieu of the RSM, but it is not required.
 - RSTP revision procedures are required. The repair station may choose to list the procedures in their RSM or their RSTP manual. (AEA recommends the RSM)

FAQ: Manual Revisions

- Reference:
 - § 145.209 Repair station manual contents.
 - (e) Procedures for revising the training program required by § 145.163 and submitting revisions to the certificate holding district office for approval;
 - AC 145-10 Paragraph 203. MANUAL REQUIREMENTS.
 - If the training program is contained in a separate manual, that document may include the revision and notification provisions required by section 145.209(e).

FAQ: RSTP Manual Distribution

- **Question:** Is there a requirements for distribution of the RSTP Manual?
- **Answer:** No, the requirement is for a RSTP to be submitted to the FAA and approved by the Administrator. Essentially, there is only one manual required.
 - If the repair station chooses to distribute copies of the RSTP manual to various offices, then a distribution list and control may be necessary.

FAQ: RSTP Manual Distribution

- References:

- § 145.163 Training requirements.

- (a) A certificated repair station must have an employee training program approved by the FAA that consists of initial and recurrent training. *.*.*.*

- AC 145-10 Paragraph 201. Regulatory Requirements

- Beginning April 6, 2006, part 145 requires an applicant for certification and current FAA-certificated repair stations to submit a training program to the FAA for approval.



Certificate Holder Responsibilities

- The certificate holder is responsible to ensure that the training program continuously reflects the repair station's *capabilities* and *work* its employees perform.
- Changes to any of the repair station's *capabilities* may constitute the need to revise the training program.

Training Program Structure

1. Repair Station Needs Assessment
2. Employee Needs Assessment
3. Training
 - Indoctrination
 - Initial Training
 - Recurrent Training
 - Specialized Training
 - Remedial Training
4. Training Documentation

Measurement of Capability

- Organizations should have a mechanism for determining capability of employees for all areas (both technical and non-technical) in which an employee is required to be competent.

Training Program Content Analysis

FAA Order 8300.10, Vol 2, FIGURE 160-1.

1. Has a systematic analysis been completed to identify the tasks performed by the trainee?
2. Does the task list appear complete, based on current roles and responsibilities, facility mission, and ongoing activities?
3. Have the required knowledge, skills, and abilities to perform the identified tasks been defined?
4. Are the task list and required knowledge, skills, and abilities reviewed and updated periodically to reflect changes in procedures, facility systems/equipment, job scope, and advances in technology?



Training Program Content Analysis

FAA Order 8300.10, Vol 2, FIGURE 160-1.

5. Have knowledge, skills, and abilities to be enhanced through training been selected?
6. Have training settings including classroom, laboratory, or “on-the-job” training been selected appropriately for the selected knowledge, skills, and abilities?
7. Has a logical sequence for training that builds upon a growing base of knowledge, skills, and abilities been defined?
8. Have entry-level requirements been specified for employees?
9. Do entry-level requirements include physical abilities, educational, technical, and experience requirements?

Training Program Content Analysis

- **DELETE Slides: FAA Order 8300.10, Vol 2 Figures 160-1 and -2**
- **Add: [FAA Notice 8900.14](#)**

Questions ?



Auditing Your Repair Station Training Program

How to Implement a Repair Station Training Program:

Showing Compliance

Implementing the RSTP

- Order 8300.10 , Chapter 160
- 9. Basic Format Requirements
 - A. The purpose of the training program is for the repair station:
 - To comply with the regulatory requirements of § 145.163;
 - To provide the training necessary for employees to perform their job functions efficiently, safely, and correctly; and
 - To familiarize employees with the repair stations manual, quality systems, and procedures.

Capable of Performing the Assigned Task

- The training program must ensure each employee is capable of performing the assigned task.
- The entire training program must be centered on this purpose; that is, to

“ensure the employee is capable of performing the assigned task”

Types of Training

- Indoctrination
- Initial Training
- Recurrent Training
- Specialized Training
- Remedial Training

New Form

- AEA Indoctrination Training Form

Indoctrination Training

- Indoctrination training should consist of the repair station specific operations and procedures.
- This is core training for all repair station personnel.
- The scope and depth of indoctrination training may vary based on the individual's assigned position.

Indoctrination Training

- Indoctrination training should be similar for all employees to establish a standard core of knowledge.
- The repair station should determine the level of indoctrination training required for each job assignment, through its training needs assessment process.

Indoctrination Training

- The following subjects should be addressed in the training program, regardless of the repair station's size or ratings:

Indoctrination Training

- (a) Title 14 CFR requirements, particularly those associated with the repair station maintenance functions and authority as reflected on the certificate and operations specifications.

Indoctrination Training

- (b) Company manuals, policies, procedures, and practices, including quality control processes, particularly those associated with ensuring compliance with maintenance (including inspection), preventive maintenance, and alteration procedures established to show compliance with 14 CFR part 145.

Indoctrination Training

- (c) Department of Transportation Hazardous Material requirements, general Occupational Safety and Health Administration (OSHA) and Environmental Protection Agency (EPA), and other local, state and federal laws requiring training for different categories of employees.

Indoctrination Training

FAA Note:

- (d) Maintenance human factors.

Training in maintenance human factors is an essential part of an FAA approved training program. If human factors were not included, their exclusion would hinder the training program approval.

(See AC 145-10, Repair Station Training Program, for additional information.)



FAQ: Human Factors

- **Question:** Should the RSTP List Human Factors?
- **Answer:** NO. Human Factors is a recommended course title/topic. Course information is not FAA approved.

FAQ: Human Factors

- References:
- FAA Order 8300.10 Vol 2 Ch 160. Sect 2 Para 4
 - NOTE: The FAA will not prescribe what human factors elements to include, but those elements should focus on aviation maintenance, and safety related issues.
 - (13) (b) NOTE: A repair station's training sources, training methods, curriculum, training courses, etc. are not subject to FAA approval.

FAQ: Human Factors

AC 145-10

- The human factors training procedures defined in the training program should be related to aviation maintenance, safety-related issues, existing legislation, where relevant, and/or some of the suggested elements below.
- The following are suggested human factors elements for inclusion into a repair station training program:

Human Factors

- The following are ***suggested human factors elements*** for inclusion into a repair station training program:
 - Introduction to human factors
 - Statistics
 - Safety culture/organizational factors
 - Human error
 - Types of errors in maintenance task
 - Human reliability
 - Vision
 - Hearing
 - Stress
 - Situational awareness
 - Workload management
 - Human performance and limitation

Indoctrination Training

- (e) Computer systems and software, as applicable to the repair station's maintenance (including inspection), preventive maintenance and alteration systems and procedures, and
- (f) Facility security.

Indoctrination Training

FAA Note:

- It should be noted that some of these subjects listed do not fall under the direct purview of the FAA or the Flight Standards Service.

Indoctrination Training

FAA Note:

- Regardless of the level of experience incoming personnel may have, indoctrination on procedures unique to the repair station should ensure a smooth transition into the work environment.
- The repair station should schedule this phase of training within a reasonable time after hire to ensure the employee understands the repair station's operations.

Initial Training

- This training should consist of all of the technical subject areas and be consistent with the specific employees position and assigned job activities.

Recurrent Training

- This training program element should provide procedures for recurrent training of subject areas relevant to a repair station employee's job function in order for them to remain current within their assigned job activities.

Sources of Recurrent Training

- Repair Station Training
- Association Sponsored Training
- Magazines
 - Avionics News
 - AMT
- FAA/IA Seminars

Training Program Basic Components

- Needs Assessments
- Area of Study and Course Definition
- Identifying the Training Method
- Training Source
- Measuring Training Effectiveness
- Training Documentation
- Interfaces with the Training Program
- Special Considerations

Auditing Your Repair Station Training Program

Needs Assessment

Needs Assessment

- 201. Regulatory Requirements (AC 145-10)
 - The training program must ensure each employee assigned to a maintenance (including inspection), preventive maintenance, and alteration task is **capable of performing the work.**

Return to Service

§ 145.157

- § 145.157 Personnel authorized to approve an article for return to service.
 - (a) A certificated repair station located inside the United States must ensure each person authorized to approve an article for return to service under the repair station certificate and operations specifications is certificated under part 65.

Regulations

- 14 CFR Part 65
 - Subpart D – Mechanics
 - § 65.81 General privileges and limitations.
 - Subpart E - Repairmen
 - § 65.103 Repairman certificate:
Privileges and limitations.
- 14 CFR Part 145
 - § 145.163 Training requirements

Regulations

- § 65.81 General privileges and limitations.
 - (a) A certificated mechanic may perform or supervise the maintenance, preventive maintenance or alteration of an aircraft or appliance, or a part thereof, for which he is rated ...
 - However, he **may not supervise** the maintenance, preventive maintenance, or alteration of, **or approve and return to service**, any aircraft or appliance, or part thereof, for which he is rated unless he has satisfactorily performed the work concerned at an earlier date.

Regulations

- § 65.81 General privileges and limitations.
 - (a) If he has not so performed that work at an earlier date, he may show his ability to do it by performing it to the satisfaction of the Administrator or under the direct supervision of a certificated and appropriately rated mechanic, or a certificated repairman, who has had previous experience in the specific operation concerned.

Regulations

- § 65.81 General privileges and limitations.
 - (b) A certificated mechanic may not exercise the privileges of his certificate and rating unless he understands the current instructions of the manufacturer, and the maintenance manuals, for the specific operation concerned.

Regulations

- § 65.103 Repairman certificate: Privileges and limitations.
 - (a) A certificated repairman may perform or supervise the maintenance, preventive maintenance, or alteration of aircraft or aircraft components appropriate to the job for which the repairman was employed and certificated, but only in connection with duties for the certificate holder by whom the repairman was employed and recommended.

Regulations

- § 65.103 Repairman certificate: Privileges and limitations.
 - (b) A certificated repairman may not perform or supervise duties under the repairman certificate unless the repairman understands the current instructions of the certificate holder by whom the repairman is employed and the manufacturer's instructions for continued airworthiness relating to the specific operations concerned.

- § 145.163 Training requirements
 - (a) A certificated repair station must have an employee training program approved by the FAA that consists of initial and recurrent training.
 - (b) The training program must ensure each employee assigned to perform maintenance, preventive maintenance, or alterations, and inspection functions is capable of performing the assigned task.

Regulations

- § 65.81 General privileges and limitations.
 -he **may not supervise** the maintenance, preventive maintenance, or alteration of, **or approve and return to service**, any aircraft or appliance, or part thereof, for which he is rated **unless he has satisfactorily performed the work concerned at an earlier date.**

(Experience)

Regulations

- § 65.81 General privileges and limitations
 - (a)
 - If he has not so performed that work at an earlier date, he may show his ability to do it by performing it to the satisfaction of the Administrator,
(Skills, Knowledge)
 - or under the direct supervision of a certificated and appropriately rated mechanic, or a certificated repairman, who has had previous experience in the specific operation concerned.
(OJT/Training)

Inspection Personnel Requirements

§ 145.155

- (a) A certificated repair station must ensure that persons performing inspections under the repair station certificate and operations specifications are--
 - (1) Thoroughly familiar with the applicable regulations in this chapter and with the inspection methods, techniques, practices, aids, equipment, and tools used to determine the airworthiness of the article on which maintenance, preventive maintenance, or alterations are being performed; and
 - (2) Proficient in using the various types of inspection equipment and visual inspection aids appropriate for the article being inspected; and
- (b) A certificated repair station must ensure its inspectors understand, read, and write English.

Supervisory Personnel Requirements

§ 145.153

- (a) *.*.*.*. The supervisors must oversee the work performed by any individuals who are unfamiliar with the methods, techniques, practices, aids, equipment, and tools used to perform the maintenance, preventive maintenance, or alterations.

Needs Assessment

- When identifying overall training needs, the repair station will consider:
 - The return of an employee to tasks after an **extended period**;

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Recent Experience Requirements.

§ 65.83

- A certificated mechanic may not exercise the privileges of his certificate and rating unless, within the preceding 24 months -
 - (a) The Administrator has found that he is able to do that work; or
 - (b) He has, for at least 6 months -
 - (1) Served as a mechanic under his certificate and rating;
 - (2) Technically supervised other mechanics;
 - (3) Supervised, in an executive capacity, the maintenance or alteration of aircraft; or
 - (4) Been engaged in any combination of paragraph (b) (1), (2), or (3) of this section.

Needs Assessment

- What is a needs assessment?
 - It is essentially a Gap Analysis.

A measurement of “What we need” to “What we have”



New Form

- AEA Needs Assessment Form

Needs Assessment

- Step 1: Identify Each Repair Station Task
- Step 2: Identify the Skill Necessary to Complete Each Task
- Step 3: Evaluate the Technician
- Step 4: Perform a Gap Analysis
- Step 5: Determine the Training Needed

Needs Assessment for a Certificated Technician

- Repair Stations Needs
 - What is the task assigned?
- Technician Qualifications
 - Is the technician a certificated Airframe and/or Powerplant mechanic? (§65.81)
 - Is the technician a certificated repairman? (§65.103)

Needs Assessment for a Certificated Technician

- Gap Analysis
- For an A&P or Repairman: are they supervising the task?
Are they approving for return to service the article?
 - If Yes: Do you have a record which shows that the technician has done the task (or a similar task with similar technology) before under the supervision of a qualified person?
 - If Yes: go do the job.
 - If No: If he has not so performed that work at an earlier date, he may show his ability to do it by performing it to the satisfaction of the Administrator or under the direct supervision of a certificated and appropriately rated mechanic, or a certificated repairman, who has had previous experience in the specific operation concerned. (§65.81)

Needs Assessment for Non-Certificated Technician

- Is the non-certificated technician working unsupervised?
 - If No: They must work under the supervision of a certificated - qualified person. The work performed may be considered On The Job Training. Record the maintenance task as On The Job Training (OJT).
 - If Yes: Do you have a record to show the technician is familiar with the methods, techniques, practices, aids, equipment, and tools used to perform the maintenance, preventive maintenance, or alterations on this equipment? (§ 145.153)
- If you do not have a record to show that the person is qualified they may **not** work unsupervised.

Auditing Your Repair Station Training Program

Course Syllabus

Course Syllabus

- The majority of the training provided by this repair station will use on-the-job (OJT) methodology.

On the Job Training (OJT)

- OJT is knowledge
 - obtained while participating in accomplishing the task under the direction of a qualified person; or,
 - watching another demonstrate a task or activity: and,
 - then accomplishing the same action under supervision until satisfactory results are obtained.

On the Job Training (OJT)

- To make this method of training most effective, the process for providing the information should be standardized by using, for a particular task, ***the approved data from the article's maintenance manual***, and the referenced tools and/or equipment.

Auditing Your Repair Station Training Program

Measuring Training Effectiveness

Measuring Training Effectiveness

- To validate that a repair station's employees are capable of performing assigned tasks, the training program should have a method to evaluate whether the training has been effective.

Measuring Training Effectiveness

- Methods to evaluate training effectiveness:
 - The first is a measure taken immediately after completion of the training to see if the training objectives have been met and the essential knowledge and skills have been transferred.
 - The second is a measure of effectiveness in the application to the actual tasks.

Auditing Your Repair Station Training Program

Record-Keeping

New Form

- AEA Training Record

Training Documentation

AC 145-10

- The repair station must have procedures to document each individual's training to ensure compliance with part 145, section 145.163.
 - This includes defining the extent of training records and establishing a system for creating, accessing, and retaining training records for 2 years after the training is provided.

Training Documentation

- Each employee's records should contain at least:
 - i. The employee's name and job position;

Training Documentation

- Each employee's records should contain at least:
 - ii Training requirements as determined by the needs assessment, including requirements for indoctrination, initial, and other training required by areas and course titles;

Training Documentation

- Each employee's records should contain at least:
 - iii. FAA certificates applicable to the qualifications

Training Documentation

- Each employee's records should contain at least:
 - iv. Other certifications, diplomas, and degrees;
 - v. Authorizations and qualifications (if not covered by 14 CFR part 65 certificates);

Training Documentation

- Each employee's records should contain at least:
 - vi. Proof of training course completion, if determined applicable to capabilities; and
 - vii. List of accomplished training, to include enough information to determine whether it is applicable to the employee's capability to perform assigned tasks:

Training Documentation

- Accomplished training documentation, should include:
 - Course title or description
 - Course objective
 - Date completed
 - Test results
 - Total hours of training
 - Location of training
 - Name of instructor and/or instructor qualifications
 - Signature of employee

Training Documentation

- Each employee's records should contain at least:
 - viii. Other documentation relevant to determining capability to perform tasks associated with assigned duties, such as past employment, written, oral, and practical tests results, etc.

FAQ Forms Approval

- AC 145-10 407. TRAINING DOCUMENTATION.
- c. All records that are required by the training program to determine whether an employee is capable of performing assigned tasks, as well as those that document training conducted by the repair station, should be considered those required by 14 CFR section 145.163.
- Therefore, these records should be detailed in the training program and retained for a minimum of 2 years.

FAQ Forms Approval

- **Question:** Does the FAA approve my training forms?
- **Answer:** NO.

FAQ Forms Approval

- FAA Order 8300.10 Vol 2 Chapter 160

NOTE:

- A repair station training program must meet the requirements of § 145.163.
- A repair station's training sources, training methods, curriculum, training courses, etc. are not subject to FAA approval. The PI only determines that the elements of a repair station training program are met, which ensure the repair station trains to meet its capabilities and customer specific requirements.
- The training program content will be evaluated for compliance of the rule.
- The repair station shoulders the responsibility that its training program sources, methods, curriculum, and courses meet the requirements of the rule and its customers.



FAQ Forms Approval

- **Federal Register / Vol. 66, No. 151 / Monday, August 6, 2001**
 - Commenter: With regard to the recordkeeping requirement, commenters' stated that the FAA should specify which items to include in the records rather than state that the records should be in a format acceptable to the Administrator.
 - With regard to commenters' concerns regarding the content of the training records, the FAA notes that the language "in a format acceptable to the FAA" refers to the media by which the records will be submitted, for example electronically. When submitting its training program for approval, a repair station should delineate the items it intends to include in the records.

AEA...Go Where the Training Is

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