FAA-G-8082-11B

INSPECTION AUTHORIZATION KNOWLEDGE TEST GUIDE

U.S. Department of Transportation
Federal Aviation Administration

INSPECTION AUTHORIZATION
KNOWLEDGE TEST GUIDE

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U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
Flight Standards Service

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SECTION I

INTRODUCTION

FAA-G-8082-11B, Inspection Authorization Knowledge Test Guide, provides information for preparing to take the following knowledge test. This document supersedes FAA-G-8082-11A, dated 2004.

TEST NAME	TEST CODE
Inspection Authorization	IAR

The Federal Aviation Administration (FAA) initiated the issuance of the inspection authorization (IA) more than 35 years ago. This system of allowing qualified mechanics the privilege of performing certain inspections has served well in the maintenance of the U.S. civil fleet. The attainment of an IA and performance of the duties thereof greatly enhance the privileges and responsibilities of the aircraft mechanic. The IA permits the airframe and powerplant (A&P) mechanic to perform a greater variety of maintenance and alterations than any other single maintenance entity.

The determination of airworthiness during an inspection is a serious responsibility. For many general aviation aircraft, the annual inspection could be the only in-depth inspection it receives throughout the year. In view of the wide ranging authority conveyed with the authorization, the test examines a broader field of knowledge than required for the A&P certificate and reflects the emphasis placed on perpetuating air safety.

This guide is not offered as an easy way to obtain the necessary information for passing the inspection authorization knowledge test. Rather, the intent of this guide is to define and narrow the field of study to the required knowledge areas included in the test. Federal Aviation Administration (FAA) airman knowledge tests are effective instruments for aviation safety and regulation measurement. However, these tests can only sample the vast amount of knowledge every aviation maintenance technician needs.

Comments may be e-mailed to AFS630Comments@faa.gov.

KNOWLEDGE TEST ELIGIBILITY REQUIREMENTS

Eligibility is established at the local FAA Flight Standards District Office (FSDO) or International Field Office (IFO) prior to taking the inspection authorization knowledge test.

You are eligible for the inspection authorization knowledge test if you meet the requirements of Title 14 of the Code of Federal Regulations (14 CFR) part 65, section 65.91(c):

"To be eligible for an inspection authorization, an applicant must—

(1) Hold a currently effective mechanic certificate with both an airframe rating and a powerplant rating, each of which is currently effective and has been in effect for a total of at least 3 years;

(2) Have been actively engaged, for at least the 2-year period before the date he applies, in maintaining aircraft certificated and maintained in accordance with this chapter;

(3) Have a fixed base of operations at which he may be located in person or by telephone during a normal working week, but it need not be the place where he will exercise his inspection authority;

(4) Have available to him the equipment, facilities, and inspection data necessary to properly inspect airframes, powerplants, propellers, or any related part or appliance; and

(5) Pass a written test on his ability to inspect according to safety standards for returning aircraft to service after major repairs and major alterations and annual and progressive inspection performed under part 43 of this chapter."

KNOWLEDGE AREAS ON THE TEST

The inspection authorization knowledge test is comprehensive, as it must test your knowledge in many subject areas. When applying for an IA you should review 14 CFR part 65, section 65.91(c)(5), for the knowledge areas on the test.

DESCRIPTION OF THE TEST

All test questions are the objective, multiple-choice-type. Each question can be answered by the selection of a single response. Each test question is independent of other questions; therefore, a correct response to one does not depend upon or influence the correct response to another. **The minimum passing score is 70 percent.**

The Inspection Authorization test contains 50 questions, and you are allowed 3 hours to complete the test. (Note: Occasionally, 51 to 53 questions appear on the test. The additional questions are validation questions, new questions being tested, that will not count against you if missed. Extra time is allotted for completion of any additional questions.)

INTERVIEW AND TEST REGISTRATION PROCESS

The first step in taking the inspection authorization knowledge test is to contact your local FSDO or IFO to make an appointment to interview with an aviation safety inspector (ASI) (airworthiness) to determine eligibility before registering for the knowledge test. At

the interview, the inspector will ask you to complete two copies of FAA Form 8610-1, Mechanic's Application for Inspection Authorization (refer to appendix 1, figure 1) and provide proof of identity. An acceptable identification document includes a recent photograph, signature, and actual residential address, if different from the mailing address. This information may be presented in more than one form of identification.

Acceptable forms of identification include, but are not limited to, driver license, government identification card, passport, alien residency (green) card, and military identification card. Some applicants may not possess the identification documentation described. In any case, you should always check with your local FSDO or IFO if you are unsure of the kind of identification to bring to the interview.

During the interview, you will be asked to demonstrate to the inspector's satisfaction that you meet the requirements for the authorization as specified in 14 CFR part 65, section 65.91(c)(1) through (4).

The inspector will interview to the extent necessary to determine that you clearly understand the inspection authorization privileges, limitations, and responsibilities. Once your qualifications have been demonstrated, the inspector will sign both of the Form 8610-1 you completed. You must present one copy of the form at the test site in order to take the test; the other copy will remain on file at the FSDO or IFO.

The next step is the actual registration process, which is accomplished in one of two ways. You may contact the computer testing designees (CTDs) through their national 1-800 numbers (refer to telephone numbers following this paragraph), or call directly to a local site. A complete listing of test centers may be found on the Internet at the FAA Web site at www.faa.gov under the heading "Education and Research." You will then need to schedule a test date and make financial arrangements for test payment. You may register for the tests several weeks in advance, and you may cancel your appointment according to the cancellation policy of the CTD. If you do not follow the CTD's cancellation policies, you could be subject to a cancellation fee.

Computer Assisted Testing Service (CATS)
1801 Murchison Drive, Suite 288
Burlingame, CA 94010
Applicant inquiry and test registration: 1-800-947-4228
From outside the U.S. (650) 259-8550

LaserGrade Computer Testing
16821 SE McGillivray Blvd., Suite 201
Vancouver, WA 98683
Applicant inquiry and test registration: 1-800-211-2753 or 1-800-211-2754
From outside the U.S. (360) 896-9111

PROCESS FOR TAKING A KNOWLEGE TEST

At the test site, you will again be asked to provide proper identification and the completed FAA Form 8610-1. Testing center personnel will not begin the test until the required items are verified.

Before you take the actual test, you will have the option to review a tutorial that demonstrates test navigation and formatting. It also provides some sample questions. The actual test is time limited; however, you should have sufficient time to complete and review your test.

Communication between individuals through the use of words is a complicated process. In addition to being an exercise in the application and use of aeronautical knowledge, a knowledge test is also an exercise in communication since it involves the use of the written language. Since the tests involve written rather than spoken words, communication between the test writer and the person being tested may become a difficult matter if both parties do not exercise care. Consequently, considerable effort is expended to write each question in a clear, precise manner. Carefully read the instructions given with each test, as well as the statements in each test item.

The inspection authorization knowledge test has been mistakenly considered by some to be an open book test because the use of reference material is permitted during the test. To view the test in this manner is a misconception. There has always been a core knowledge requirement for which no reference material was provided. Therefore, it should be noted that, during the tests, there are subject areas for which reference material is not included in the test supplement. These areas will draw on skills acquired as an airframe and powerplant mechanic and which are necessary to properly inspect work performed by others.

The IA test supplement provides appropriate segments of 14 CFR regulations, charts, graphs, and technical data necessary to solve problems contained in the test. Prior to taking the test, you should take a few minutes to look through the supplement to determine what is included.

You should carefully read the information and instructions provided with the test, as well as the statements in each test item.

When taking a test, you should keep the following points in mind:

- Answer each question in accordance with the latest regulations and guidance publications.
- Read each question carefully before looking at the answer options. You should clearly understand the problem before attempting to solve it.
- After formulating an answer, determine which answer option most nearly corresponds with your answer. The answer you choose should completely resolve the problem.

- From the answer options given, it may appear that there is more than one possible answer; however, there is only one answer that is correct and complete. The other answers are either incomplete, erroneous, or derived from popular misconceptions.
- If a certain question is difficult for you, it is best to mark it for review and proceed to the next question. After you answer the less difficult questions, return to those you marked for review and answer them. The review marking procedure will be explained to you prior to starting the test. Although the computer should alert you to unanswered questions, make sure every question has an answer recorded. This procedure will enable you to use the available time to the maximum advantage.
- When solving a calculation problem, select the answer that most nearly matches your solution. The problem has been checked by various individuals and with different types of calculators; therefore, if you have solved it correctly, your answer will be closer to the correct answer than any of the other choices.

USE OF TEST AIDS AND MATERIALS

You may use aids, reference materials, and test materials within the guidelines listed below, if actual test questions or answers are not revealed. All models of aviation-oriented calculators may be used, including small electronic calculators that perform only arithmetic functions (add, subtract, multiply, and divide) may be used. Simple programmable memories, which allow addition to, subtraction from, or retrieval of one number from the memory, are permissible. Also, simple functions such as square root and percent keys are permissible.

The following guidelines apply:

1. You may use any reference materials provided with the test. In addition, you may use scales, straightedges, protractors, plotters, and electronic or mechanical calculators that are directly related to the test.
2. Manufacturer's permanently inscribed instructions on the front and back of such aids (e.g., formulas, conversions, and weight and balance formulas) are permissible.
3. Testing centers may provide a calculator to you and/or deny use of your personal calculator based on the following limitations:
    a. Prior to and upon completion of the test while in the presence of the proctor, you must actuate the ON/OFF switch and perform any other function that ensures erasure of any data stored in memory circuits.
    b. The use of electronic calculators incorporating permanent or continuous type memory circuits without erasure capability is prohibited. The proctor may refuse the use of your calculator when unable to determine the calculator's erasure capability.
    c. Printouts of data must be surrendered at the completion of the test if the calculator incorporates this design feature.

d. The use of magnetic cards, magnetic tapes, modules, computer chips, or any other device upon which prewritten programs or information related to the test can be stored and retrieved is prohibited.

e. You are not permitted to use any booklet or manual containing instructions related to use of test aids.

4. Dictionaries are not allowed in the testing area.

5. The proctor makes the final determination relating to test materials and personal possessions you may take into the testing area.

DYSLEXIC TESTING PROCEDURES

If you are a dyslexic applicant, you may request approval from the local Flight Standards District Office (FSDO) or International Field Office (IFO) to take an airman knowledge test using one of the three options listed in preferential order:

Option 1. Use current testing facilities and procedures whenever possible.

Option 2. You may use a Franklin Speaking Wordmaster® to facilitate the testing process. The Wordmaster® is a self-contained electronic thesaurus that audibly pronounces typed in words and presents them on a display screen. It has a built-in headphone jack for private listening. The headphone feature must be used during testing to avoid disturbing others.

Option 3. If you do not choose to use the first or second option, you may request a proctor to assist in reading specific words or terms from the test questions and supplement material. In the interest of preventing compromise of the testing process, the proctor must be someone who is non-aviation oriented. The proctor must provide reading assistance only, with no explanation of words or terms. When this option is requested, the FSDO or IFO inspector must contact the Airman Testing Standards Branch (AFS-630) for assistance in selecting the test site and proctor.

Prior to approval of any option, the FSDO or IFO inspector must advise you of the regulatory certification requirement of being able to read, write, speak, and understand the English language.

CHEATING OR OTHER UNAUTHORIZED CONDUCT

Computer testing centers must follow strict security procedures to avoid test compromise. These procedures are established by the FAA and are covered in FAA Order 8080.6 (as amended), Conduct of Airman Knowledge Tests. The FAA has directed testing centers to terminate a test at any time a test proctor suspects a cheating incident has occurred. An FAA investigation will then be conducted. If the investigation determines that cheating or unauthorized conduct has occurred, then any airman certificate or rating that you hold may be revoked, and you will be prohibited for 1 year from applying for or taking any test for a certificate or rating under 14 CFR part 65.

AIRMAN KNOWLEDGE TEST REPORTS

Upon completion of the knowledge test, you will receive your Airman Knowledge Test Report (with the testing center's embossed seal), which reflects your score. The test site retains the FAA Form 8610-1, Mechanic's Application for Inspection Authorization.

The Airman Knowledge Test Report lists the learning statement codes for questions answered incorrectly. The total number of learning statement codes shown on the Airman Knowledge Test Report is not necessarily an indication of the total number of questions answered incorrectly.

The Learning Statement Reference Guide for Airman Knowledge Testing, found at www.faa.gov, contains the listings of reference materials, learning statement codes, and learning statements. The learning statement codes, as used in airman testing, refer to a measurable statement of knowledge that a student should be able to demonstrate following a defined element of training. You should match the codes on your Airman Knowledge Test Report to the codes in the Learning Statement Reference Guide to review your areas of deficiency.

Listings of reference materials have been prepared by the FAA to establish references for all knowledge standards. The listings contain reference materials to be used when preparing for all airman knowledge tests.

After passing the test, present your Airman Test Report to an ASI at the FSDO or IFO where you interviewed. It is best to return to the original interviewer if possible; however, any available airworthiness ASI can complete the authorization process. At that time, the ASI will again review your application and discuss any questions you have. When the ASI is satisfied that all requirements are met, the certificate will be issued.

Should you require a duplicate Airman Knowledge Test Report due to loss or destruction of the original, send a signed request accompanied by a check or money order for $1 payable to the FAA. Your request should be sent to:

Federal Aviation Administration
Airman Certification Branch, AFS-760
P.O. Box 25082
Oklahoma City, OK 73125

Airman Knowledge Test Reports are valid for the 24-calendar-month period preceding the month you complete the test. If the Airman Knowledge Test Report expires before you finalize the inspection authorization, you must retake the knowledge test.

RETESTING PROCEDURES

If you receive a score lower than 70 percent, you may not apply for retesting until 90 days after the date that you failed the test. Any attempt to retest prior to the 90-day waiting period is contrary to 14 CFR part 65, and could result in revocation of any

airman certificates that you hold. Whether retesting after a failed examination or simply retesting for a better score, you will need to present your test report in order to retest.

TRAINING AND TESTING PUBLICATIONS AND GENERAL INFORMATION

Most of the current Flight Standards Service airman training and testing publications can be obtained in electronic format from the FAA Web site, www.faa.gov. The training and testing publications and general information can be found on the opening page of that Web site under the Education and Research tab. If a publication is not available in electronic format, there are instructions for obtaining paper copies. Information found on the Web site includes the following:

- Advisory Circulars
- Knowledge testing sites
- Knowledge Test statistics
- Knowledge testing supplements
- Other testing information
- Practical Test Standards
- Training handbooks
- Learning Statement Reference Guide
- Code of Federal Regulations
- Airworthiness Directives
- Type Certificate Data Sheets

Airman Knowledge Test Questions

Sample questions are contained in the Sample Test Questions and Answers section of this test guide and represent the types of questions included in the actual test banks. Practicing these questions will help you become familiar with similar questions on the airman knowledge tests. The knowledge test is not designed to intimidate any prospective airman; it is designed to measure understanding of the rules and regulations required to receive an FAA certificate. The list of reference materials contained in this test guide is provided to ensure that instructors and students are able to determine the importance of the subject matter to be taught and learned.

Knowledge Testing Supplements

The knowledge testing supplements contain the graphics, legends, and maps that are needed to successfully respond to certain knowledge test items. These supplements will be provided by CTD test center personnel during the airman knowledge test.

Airman Knowledge Test Statistics

Test statistics for all airman knowledge tests are contained in a series of tables organized by year and subject area. Individual tables are provided for the following subject areas: test volume, pass rates, average test scores, countries, regions, and district offices.

Learning Statement Reference Guide

Learning statement codes replace the old subject matter codes and are noted on the test report. They refer to measurable statements of knowledge that a student should be able to demonstrate following a defined element of training. The learning statement corresponding to the learning statement code on the test report can be located in the Learning Statement Reference Guide on the Web site.

SUGGESTIONS FOR STUDYING FOR THE IA TEST

1. Be familiar with the parts of 14 CFR, as listed in appendix 2.

2. Study 14 CFR parts 91 and 135 aircraft maintenance and inspection requirements.

3. Be familiar with aircraft type certificate data sheets and specifications. This should include the differences and history of these documents. Applicant should know how revisions are noted.

4. Study 14 CFR part 43, appendixes A, B, and D, for detailed information regarding major repairs, major alterations, and annual inspections.

5. Learn to use the graphs and tables in AC 43.13-1B, (or most current revision) Acceptable Methods, Techniques and Practices—Aircraft Inspection and Repair; and AC 43.13-2A, (or most current revision) Acceptable Methods, Techniques, and Practices—Aircraft Alterations.

6. Be familiar with airworthiness directives for small aircraft and rotorcraft. This should include knowledge of 14 CFR part 39.

7. Be familiar with the completion of FAA Form 337 (Major Repair and Alteration—Airframe, Powerplant, Propeller, or Appliance). Guidance in this area is provided in AC 43.9-1F, Instructions for Completion of FAA Form 337, Major Repair and Alteration (Airframe, Powerplant, Propeller, or Appliance).

8. Know the requirements for maintenance and inspection record entries for 14 CFR parts 43 and 91. Guidance in this area is provided in AC 43.9C, Maintenance Records, and AC 39-7C, Airworthiness Directives.

9. Be familiar with minimum equipment lists for general aviation aircraft. Guidance in this area is provided in AC 91-67, Minimum Equipment Requirements for General Aviation Operations under 14 CFR part 91.

10. Be familiar with all aspects of weight and balance computations. Applicant must be able to:

    a. calculate basic empty weight and center of gravity in both inches and percent of mean aerodynamic chord (MAC).

    b. conduct adverse loading checks for extreme forward and rearward CG positions.

    Applicants should practice making changes to an aircraft weight and balance report by simulating installation or removal of equipment and then computing the forward, aft, and empty-weight center of gravity (CG). Guidance in this area is provided in AC 65-9, Airframe and Powerplant Mechanics General Handbook and FAA-H-8083-1, Aircraft Weight and Balance Handbook. Also, many commercial publications are available on this subject.

NOTE: You should use the most current versions of the referenced documents.

SECTION II

Information in the following section provides items of interest to persons holding or seeking an Inspection Authorization (IA).

GENERAL

The basic functions of the holder of an inspection authorization (IA) are set forth in Title 14 of the Code of Federal Regulations (14 CFR) part 65, section 65.95. With the exception of aircraft maintained in accordance with a Continuous Airworthiness Maintenance Program under part 121, an IA may inspect and approve for return to service any aircraft or related part or appliance after a major repair or major alteration. Also, the holder of an IA may perform an annual inspection and he or she may supervise or perform a progressive inspection.

APPROVING MAJOR REPAIRS AND MAJOR ALTERATIONS

A primary responsibility of the holder of an IA is to determine airworthiness by inspecting repairs or alterations for conformity to approved data, and assuring that the aircraft is in a condition for safe operation. During inspection of major repairs or major alterations, the holder of an IA must also determine that they are compatible with previous repairs and alterations that have been made to the aircraft.

The holder of an IA must personally perform the inspection. 14 CFR does not provide for delegation of this responsibility.

Approving major repairs and major alterations is a serious responsibility. The approval action should consist of a detailed investigation to establish, at least that:

1. All replacement parts installed conform to approved design and/or have traceability to the original equipment manufacturer (OEM).
2. As installed, the installation conforms to approved data that is applicable to the installation.
3. Workmanship meets the requirements of 14 CFR part 43, section 43.13 (the aircraft or product is equal to its original or properly altered condition).
4. The data used is appropriate to the aircraft certification rule (e.g., CAR 3, 14 CFR part 23).
5. Work is complete and compatible with other structures or systems.
6. The holder of an IA *cannot* approve the *data* for major repairs or major alterations. He or she may, however, inspect to see that alterations conform to data previously approved by the Administrator (14 CFR part 65, section 65.95). This means the holder of an IA ensures that approved data is available and is used as the basis for the approval. This availability determination should be made prior to beginning the repair or alteration. If data is unavailable, or if the holder of an IA is unsure of the acceptability of the available data, the local

Aviation Safety Inspector (ASI) should be consulted. The ASI may, as the circumstances warrant, be able to:

a. Establish an acceptable basis for approval,

b. Approve the data, or

c. Recommend application for a supplemental type certificate.

Quite often major repairs are performed that are eventually covered by fabric, metal skin, or another structure. When this situation exists, the holder of an IA should have a clear understanding with the mechanic performing the repair that a precover inspection is necessary. The inspection should assure that the repair was made in accordance with acceptable methods, techniques, and practices prescribed by 14 CFR part 43 and that the structure to be covered is free from defects, corrosion, or wood rot, and is protected from the elements. In addition, the holder of an IA should inspect other affected areas for hidden damage if the aircraft has been involved in an accident or incident. An entry is required to be made in the maintenance record and FAA Form 337, Major Repair and Alteration, must be completed. (Refer to appendix 1, figure 3, showing typical entries on the back of FAA Form 337.)

Minor deviation from approved data is permissible if the change is one that could be approved as a minor alteration when considered alone. Be sure to list the deviations on FAA Form 337 and make an entry in the maintenance record when completing the aircraft records. When in doubt, contact the local ASI who may decide the change is not minor and would need specific approval or an amendment of the original approval.

Approved data to be used for major repairs and major alterations may be one or more of the following:

1. Type Certificate Data Sheets
2. Aircraft Specifications
3. Supplemental Type Certificate (STC) data, provided it specifically applies to the item being repaired/altered. Such data may be used in whole or part as included within the design data associated with the STC.
4. Airworthiness Directives (ADs)
5. Manufacturer’s FAA Approved Data
6. Designated Engineering Representative (DER) approved data with FAA Form 8110-3, Statement of Compliance (Note: This type of data usually requires additional approval.)
7. Appliance Manufacturer’s Manuals or instructions, unless specifically not approved by the Administrator, are approved for major repairs.
8. AC 43.13-1B, Acceptable Methods, Techniques, and Practices (Aircraft Inspection and Repair), may be used directly as approved data (for repairs only) without further approval only when there is no manufacturer repair or maintenance instructions that address the repair and the user has determined that it is:

a. Appropriate to the product being repaired,

b. Directly applicable to the repair being made, and

c. Not contrary to manufacturer's data.

This data may also be used as a basis to gain FAA data approval for major repairs.

9. FAA Field Approval (FAA Form 337) issued for duplication of identical aircraft may be used as approved data only when the identical alteration is performed on an aircraft of identical make, model, and series by the original modifier.
10. U.S. Civil Airworthiness Authority (CAA) Form 337s approved before October 1, 1955, or earlier may be used as approved data.
11. FAA-approved portions of Service Repair Manuals (SRM)
12. Data in the form of an Appliance Type Approval issued by the Minister of Transport Canada for those parts or appliances for which there is no current Technical Standard Order (TSO) available. The installation manual provided with the appliance includes the Transport Canada certificate as well as the date of issuance and an environmental qualification statement.
13. Foreign bulletins, for use on U.S.-certificated foreign aircraft, when approved by the foreign authority.

Inspecting repairs or alterations consists of these basic operations:

1. Determine that the repair or alteration data has FAA approval.
2. Inspect the configuration of the repair or alteration for conformity to the approved data and the performance standards of 14 CFR part 43. At the same time, the aircraft should still comply with applicable airworthiness requirements, and the repair or alteration be compatible with all other installations.
3. Ensure that all operating limitations affected by an alteration are appropriately revised. Sometimes, limitations are in the form of flight manual supplements, instrument range markings, placards, or combinations of these. See the local ASI for limitations on changes which can be made.
4. Determine that aircraft record entries have been made and the weight and balance data and equipment list have been revised, when appropriate. There should be a statement on the FAA Form 337 to the effect that the weight and balance data and equipment list have been revised. When an alteration results in a change in the center-of-gravity (CG) position, the affected CG limit should be investigated under adverse loading conditions unless the new CG falls within an approved empty CG range. For instance, if the CG has shifted aft, the loading conditions should be computed to see that the aircraft does not exceed the aft CG limit. It is the pilot's responsibility to have the aircraft correctly loaded. However, when approving an alteration, it is the IA's responsibility to see that weight and balance data have been revised. The aircraft record entries may refer to the FAA Form 337 for details, such as: "Installed STOL kit in accordance with

STC SA 940 CE drawing number 5084 dated April 24, 1996. See FAA Form 337, this date, for details."

5. Indicate approval in block 7 of FAA Form 337, and return both copies to the person who performed the work, for disposition in accordance with 14 CFR part 43, appendix B.

ANNUAL AND PROGRESSIVE INSPECTIONS

The procedures and scope for annual inspections are set forth in 14 CFR part 43, appendix D, and should be followed in detail. The scope and detail for a progressive inspection is established by the owner or operator in accordance with 14 CFR part 91, section 91.409(d). There are additional requirements for annual and progressive inspections listed in 14 CFR part 43, section 43.15. The scope and detail of 100-hour and annual inspections are the same. Record entries are very important as they are the only evidence an aircraft owner has to show compliance with the inspection requirements of 14 CFR part 91, section 91.409. (Refer to appendix 1, figure 4, of this test guide).

The following reminders should help in determine aircraft compliance with all airworthiness requirements. (Refer to 14 CFR part 43, section 43.15(a).)

Configuration

The aircraft should conform to the aircraft specification or type certificate data sheet, any changes by supplemental type certificates and/or its properly altered condition. When the aircraft does not conform, use the procedures for "unairworthy" items listed in 14 CFR part 43, section 43.11(a)(5).

1. Alterations to the product may have changed some of the operating limitations.
2. Unrecorded alterations or repairs may have been made in the past and warrant one of the following:
   a. Contacting the owner for pertinent information
   b. Conducting inspection and personally approving for return to service by completing FAA Form 337, if approved data is available
   c. Contacting local ASI for assistance
3. The aircraft specification or type certificate data sheet indicates when a flight manual is required. It also identifies limitations which must be displayed in the form of markings and placards.
4. Unlike the specifications, type certificate data sheets do not contain a list of equipment approved for a particular aircraft. The list of required and optional equipment can be found in the equipment list furnished by the manufacturer of the aircraft. Sometimes a later issue of the list is needed to cover recently approved items. Serial number eligibility should always be considered.

Condition

The holder of an IA may use the checklist in 14 CFR part 43 (appendix D), the manufacturer's inspection sheets, or a checklist designed by the holder of an IA, that includes the scope and detail of the items listed in appendix D, to check the condition of the entire aircraft. This includes checks of the various systems listed in 14 CFR part 43, section 43.15.

1. Routine servicing is *not* a part of the annual inspection. The inspection itself is essentially a visual evaluation of the condition of the aircraft and its components and certain operational checks. The manufacturer may recommend certain services to be performed at various operating intervals. These can often be done conveniently during an annual inspection, and in fact should be done, but are not considered to be a part of the inspection itself.
2. It is very important that the holder of an IA be familiar with the manufacturer's service manuals, bulletins, and letters for the product being inspected. Use these publications to avoid overlooking problem areas.
3. AC 43-16, Aviation Maintenance Alerts, is also an important source of service experience. The articles for the alerts are taken from selected service difficulties reported to the FAA on FAA Form 8010-4, Malfunction or Defect Reports. Monthly copies of the alerts are provided on the Internet at www.faa.gov. Comments may be sent by letter, with name and address typed or legibly printed to:

   Federal Aviation Administration
   Designee Standardization Branch, AFS-640
   P.O. Box 25082
   Oklahoma City, OK 73125
4. When the holder of an IA approves an aircraft for return to service, he or she will be held responsible for the condition of the aircraft *as of the time of approval*.

Minimum Equipment List

The minimum equipment list (MEL) is intended to permit operations with certain inoperative items of equipment for the minimum period of time necessary until repairs can be accomplished. It is important that repairs are accomplished at the earliest opportunity in order to return the aircraft to its design level of safety and reliability.

Be mindful of the following points with respect to MELs:

1. When inspecting aircraft operating with an MEL, the holder of an IA should review the document where inoperative items are recorded (aircraft maintenance record, logbook, discrepancy record, etc.) to determine the state of airworthiness with regard to those recorded discrepancies. Inspections of aircraft with approved MELs will be in accordance with 14 CFR under which the MEL was issued.
2. Those MELs specifying repair intervals through the use of A, B, C, D codes require repairs of deferred items at or prior to the repair times established by the letter designated category. In such instances, some items previously deferred

may not be eligible for continued deference at the inspection or may require additional maintenance. Where repair intervals are not specified by codes in the MEL, all MEL-authorized inoperative instruments and/or equipment should be repaired or inspected and deferred before approval for return to service.

3. Aircraft established on a progressive inspection program require that all MEL-authorized inoperative items be repaired or inspected and deferred at each inspection whether or not the item is encompassed in that particular segment.
4. When inspecting aircraft operating without an MEL, 14 CFR part 91, section 91.213(d), allows certain aircraft not having an approved MEL to be flown with inoperative instruments and/or equipment. These aircraft may be presented for annual or progressive inspection with such items previously deferred or may have inoperative instruments and equipment deferred during an inspection. In either case, the holder of an IA is required by 14 CFR part 43, section 43.13(b) to determine that:
    a. The deferrals are eligible within the guidelines of that rule.
    b. All conditions for deferral are met, including proper recordation in accordance with 14 CFR part 43, sections 43.9 and 43.11; and
    c. Deferral of any item or combination of items will not affect the intended function of any other operable instruments and/or equipment, or in any manner constitute a hazard to the aircraft. When these requirements are met, such an aircraft is considered to be in a properly altered condition with regard to those deferred items.

Airworthiness Directives

The holder of an IA is required by 14 CFR part 43, section 43.13, to determine that all applicable ADs for aircraft, powerplants, propellers, instruments, and appliances have been accomplished. You must consider the following:

1. If the maintenance records indicate compliance with an AD, the holder of an IA should make a reasonable attempt to verify the compliance. It is not uncommon for a component to have compliance with an AD accomplished and properly recorded then later be replaced by another component on which the AD has not been accomplished. The holder of an IA is not expected to disassemble major components such as cylinders, crankcases, etc., if adequate records of compliance exist.
2. When the maintenance records *do not* contain indications of AD compliance, the holder of an IA should:
    a. Make the AD an item on a discrepancy list provided to the owner, in accordance with 14 CFR part 43, section 43.11(b);
    b. With the owner's concurrence, do whatever disassembly is required to determine the status of compliance; or
    c. Obtain concurrence of the owner to comply with the AD.

4. Often, an AD calls for an inspection, with a modification or inspection required at a later date. It is very important to identify, in the maintenance record entry, the portion of the AD complied with and the exact method of compliance.
5. 14 CFR section 91.417(a)(2)(v) requires each registered owner or operator to keep a record of the current status of applicable ADs. This status includes, for each, the method of compliance, AD number, and revision date. If the AD involves recurring action, the time and date should be recorded when the next action is required. As a vital part of the services performed, the holder of an IA may wish to provide the owner with information he or she is expected to keep. (Refer to appendix 1, figure 5.)
6. The owner should also be informed of any subsequent requirements of an AD or whether a reinspection is required at operating intervals other than at annual inspections. Often, the subsequent requirements are at 100-hour intervals and will need to be done whether or not the aircraft is required to have 100-hour inspections. Where a progressive inspection is involved, the approved program should state how and when the AD review will be accomplished. However, as a mechanic or IA, you should be aware of an AD that is pending or due, and is not in the area you are inspecting. It is good customer relations to inform the owner or pilot of the situation.

Malfunction or Defect Reports

All malfunctions or defects that come to the attention of the holder of an IA should be reported on FAA Form 8010-4. (Refer to appendix 1, figure 6.) Copies of the self-addressed form are available at all Flight Standards District Offices (FSDOs), easy to complete, and require no postage. Prompt reporting will contribute much toward improving air safety by helping correct unsafe conditions.

Paperwork Review

The owner or operator is responsible for maintaining the equipment list, CG and weight distribution computations, and loading schedules, if necessary. The following items must be considered:

1. The holder of an IA as required by 14 CFR part 43, section 43.13 determines that the required placards and documents set forth in the aircraft specification or type certificate data sheet are available and current. The aircraft should be reported as being in an unairworthy condition if these placards and documents are not available. Missing, incorrect, or improperly located placards are regarded as an unairworthy item, and the owner or operator should be informed that, under the requirements of 14 CFR part 91, section 91.9, the aircraft may not be operated until they are available.
2. The holder of an IA should refer to the registration and airworthiness certificates for the owner’s name and address; the aircraft make, model, registration, and serial numbers needed for recording purposes. Be sure not to use manufacturer trade names as they do not always coincide with the actual model designation.

(Cessna Skylane is 182, Piper Seneca III is PA 34 220T, etc.) If registration and airworthiness certificates are not available, the aircraft does not need to be reported in unairworthy condition; however, the owner or operator should be informed that the documents required by 14 CFR part 91, section 91.203(a)(i)(2)(b), should be in the aircraft and the airworthiness certificate displayed *when the aircraft is operated*.

3. On aircraft for which no approved flight manual is required, the operating limitations prescribed during original certification, and as required by 14 CFR part 91, section 91.9, must be carried in or be affixed to the aircraft. Range markings on the instruments, placards, and listings are required to be worded and located as specified in the type certificate data sheet. (Refer to appendix 1, figure 7.)

Aircraft Markings

Required aircraft identification markings are discussed in 14 CFR part 45. It is the owner's or operator's responsibility to have the nationality and registration markings properly displayed on the aircraft (14 CFR part 91, section 91.9(c)). The holder of an IA can, and should, offer advisory service to owners and operators in regard to any deficiencies in markings; however, such deficiencies are not cause to report an aircraft in "unairworthy" condition.

Aircraft with Discrepancies or Unairworthy Conditions

If the aircraft is not approved for return to service after a required inspection, use the procedures specified in 14 CFR part 43, section 43.11. This will permit an owner to assume responsibility for having the discrepancies corrected prior to operating the aircraft.

Discrepancies or unairworthy conditions can be resolved in the following ways:

1. The discrepancies can be cleared by a person who is authorized by 14 CFR part 43 to do the work. Preventive maintenance items could be cleared by a pilot who owns or operates the aircraft, provided the aircraft is not used under 14 CFR parts 121, 129, or 135; except that approval may be granted to allow a pilot operating a rotorcraft in a remote area under 14 CFR part 135 to perform preventive maintenance.
2. The owner may want the aircraft flown to another location to have repairs completed, in which case the owner should be advised that the issuance of FAA Form 8130-7, Special Flight Permit, is required. This form is commonly called a ferry permit and is detailed in 14 CFR part 21, section 21.197. The certificate may be obtained in person or by fax at the local FSDO or from a Designated Airworthiness Representative.
3. If the aircraft is found to be in an unairworthy condition, an entry will be made in the maintenance records that the inspection was completed and a list of unairworthy items was provided to the owner. When all unairworthy items are

corrected by a person authorized to perform maintenance and that person makes an entry in the maintenance record for the correction of those items, the aircraft is approved for return to service. (Refer to appendix 1, figures 8 and 9.)

Incomplete Inspection

If an annual inspection is not completed, the holder of an IA should:

- Indicate any discrepancies found in the aircraft records.
- *Not* indicate that an annual inspection was completed.
- Indicate in the aircraft records the extent to which the inspection was completed and all work accomplished.

MAINTENANCE RECORDS

The holder of an IA and other maintenance personnel or agencies are required to record maintenance, inspections, or alterations performed or approved in accordance with the requirements of 14 CFR part 43, sections 43.9 and 43.11. The owner or operator is required by 14 CFR part 91, section 91.417 to keep maintenance records. The holder of an IA is also required to indicate the total aircraft time in service when a required inspection is done.

Responsibility for maintenance work performed rests with the person whose signature and certificate number is entered on the appropriate maintenance record and/or forms. The responsibility for annual and progressive inspections and approval for return to service of major repairs or major alterations is assumed by the holder of an IA whose signature and certificate number appears on the appropriate maintenance records.

COMPLETION OF FAA FORM 337, MAJOR REPAIR AND ALTERATION (AIRFRAME, POWERPLANT, PROPELLER, OR APPLIANCE)

FAA Form 337, Major Repair and Alteration (Airframe, Powerplant, Propeller, or Appliance), serves two purposes. One is to provide owners and operators a record of major repairs and major alterations indicating details and approval. The other purpose is to provide the FAA with a copy for the aircraft records. An example of a typical completed FAA Form 337 is provided in appendix 1, figure 3.

1. The person who performed or supervised the major repair or major alteration prepares the original FAA Form 337 (two originals). The holder of an IA then further processes the forms when they are presented for approval.
2. Instructions for the completion of FAA Form 337 appear in AC 43.9-1 (as revised), Instructions for Completion of FAA Form 337, Major Repair and Alteration (Airframe, Powerplant, Propeller, or Appliance).

3. Disposition of FAA Form 337.

   a. The holder of an IA who has found a major alteration or a major repair to be in conformity with FAA-approved data should review the FAA Form 337 for completeness and accuracy, and complete item 7.

   b. In accordance with 14 CFR part 43, the person performing a major repair or major alteration shall:

      (1) Give a signed copy of FAA Form 337 to the aircraft owner.

      (2) Make the proper entry in the maintenance records.

      (3) Submit *either* one completed hardcopy form within 48 hours to:

      Federal Aviation Administration
      Aircraft Registration Branch, AFS-751
      PO Box 25724
      Oklahoma City, OK 73125

      or an electronic form automatically through the Web site at http:/eformservice.faa.gov/eForm337.aspx.

   c. The holder of an IA should ensure that the duplicate is an exact and legible reproduction of the original. The signatures should not be carbon copies but original signatures written in ink.

   d. If the FAA Form 337 is completed for extended-range fuel tanks installed within the passenger compartment or a baggage compartment, the person who performs the work and the person authorized to approve the work by 14 CFR section 43.7 shall execute an FAA Form 337 in at least triplicate, as required by 14 CFR part 43, appendix B. One (1) copy of the FAA Form 337 shall be placed on board the aircraft as specified in 14 CFR section 91.417 of the rules. The remaining forms shall be distributed as previously noted.

   e. If FAA Form 337 has been completed for engines, propellers, spare parts or components, both copies of the form, with the approval portion completed, should be attached to the part or component until it is installed on an aircraft.

      (1) The mechanic who makes the installation will, in accordance with 14 CFR part 43, section 43.9(a)(4), complete both copies of FAA Form 337 by filling in blocks 1 and 2 and sign for the installation in the aircraft records, making reference to the FAA Form 337 in the record entry.

      (2) Give a copy to the owner and forward a copy within 48 hours to:

      Federal Aviation Administration
      Aircraft Registration Branch, AFS-751
      P.O. Box 25724
      Oklahoma City, OK 73125

      (3) Electronic forms are submitted automatically through the Web site at http:/eformservice.faa.gov/eForm337.aspx.

WEIGHT AND BALANCE

Weight and balance data is not required on the FAA Form 337. However, it is imperative that weight and balance checks be made very carefully. Since practically every aircraft manufacturer uses a different method of weight and balance control, it not feasible to provide a universally adaptable method. The example provided in appendix 1, figure 11, of this guide is general in nature and can be modified or revised to fit the aircraft involved. When revising weight and balance data, these general guidelines should be followed.

1. The weight and balance data should be kept together in the aircraft records.
2. When making revisions, use a permanent easily identified method, with full-size sheets of paper large enough to contain complete computations and minimize the possibility of becoming detached or lost.
3. Each page should be identified with the aircraft by make, model, serial number, and registration number.
4. The pages should be signed and dated by the person making the revision.
5. The nature of the weight change should be described.
6. The old weight and balance data should be marked “superseded” and dated.
7. A new page should show the date of the old figures it supersedes.
8. Appropriate fore and/or aft extreme loading conditions should be investigated and the computations shown.
9. Example loading computations may be helpful.
10. On large aircraft, be careful to distinguish between empty weight and operating weights that may include items, such as commissary supplies, spare parts, lavatory water, etc.
11. On small aircraft, it is often convenient to post a placard in the aircraft indicating the empty weight, useful load, and empty CG, along with example loadings or general instructions, to cover the most likely loading conditions. (Refer to 14 CFR section 91.9(b)(2).) AC 120-27, Aircraft Weight and Balance Control, and FAA-H-8083-1 (as revised), Aircraft Weight and Balance Handbook, contain useful information applicable to the functions performed by the holder of an IA on general aviation aircraft.

GET IT STRAIGHT

Be sure to come to a mutual agreement with the aircraft owner concerning exactly what work is to be performed. Misunderstandings usually result from a lack of clear communication. Attention to the following details will usually avoid the ill will a later disagreement may generate.

1. Itemize the work to be done so the owner will have a clear understanding of the work order.

2. Establish a firm understanding about the cost, or range of cost, anticipated for the job.
3. If an annual inspection is involved, indicate that certain maintenance is required to perform the inspection, such as:
    a. Removing cowling and fairing, opening inspection plates, etc.
    b. Cleaning the aircraft and engine.
    c. Disassembling wheels and other components to determine their condition.
4. Advise the owner that an annual inspection involves determination of compliance with aircraft specifications and airworthiness directives (AD').
5. Agree whether routine servicing is to be included as part of the inspection or if it is to be performed separately. Such servicing is not a part of the inspection, but may be conveniently done while conducting the inspection. Such items might be:
    a. Cleaning spark plugs.
    b. Servicing landing gear shock struts.
    c. Changing oil.
    d. Making minor adjustments.
    e. Servicing brakes.
    f. Dressing nicked propeller blades.
    g. Lubricating where necessary.
    h. Stop-drilling small cracks and minor patching of cowling and baffles.
6. The owner should be made aware that the annual or progressive inspection does not include correction of discrepancies or unairworthy items and that such maintenance will be additional to the inspection. Maintenance and repairs may be accomplished simultaneously with the inspection by a person authorized to perform maintenance if agreed on by the owner and holder of the IA. This method would result in an aircraft that is approved for return to service with the completion of the inspection. A written list of discrepancies and unairworthy items not repaired concurrently with the inspection must be made and given to the owner. Record uncorrected discrepancies and unairworthy items in the maintenance records. The owner must make arrangement for correction or deferral of items on the list of discrepancies and unairworthy items with a person authorized to perform maintenance prior to returning the aircraft to service. The holder of the IA ensures that any item permitted to be inoperative by a MEL or under 14 CFR part 91, section 91.213(d)(2) is properly placarded and any maintenance for deferral has been carried out. Any deferred items are to be included on the list of discrepancies and unairworthy items. The owner should be informed that the aircraft should not be operated until the discrepancies and unairworthy items are corrected or are appropriately deferred.
7. Establish a reasonable time frame to accomplish the inspection.

8. Request the owner to supply the complete aircraft records (airframe, engines, and propellers) for study, review, and entries. Point out that this is necessary to properly conduct an annual inspection.
9. Complete the inspection as soon as practicable. Often, an aircraft will sit around the shops waiting for parts, even though the inspection has actually been completed. In this case, it is advisable to officially report the aircraft unairworthy. (Refer to 14 CFR part 43, section 43.11(a)(5).) When the parts arrive, the repairs can be completed and the aircraft approved for return to service in the usual manner by the person who makes the repairs. The time lapse may represent several weeks, or even months, and things can deteriorate on the aircraft. Also, there is the chance that an AD involving some part of the aircraft may have been issued in the interim. In these cases, it might be unwise to complete the repairs originally intended and sign off the aircraft as “airworthy” without doing another complete inspection.
10. Complete the aircraft record entries as required by 14 CFR part 43, sections 43.9 and 43.11 and provide sufficient information for the owner to comply with 14 CFR part 91, section 91.417(a)(2)(i). Make adequate descriptions of repairs or alterations if accomplished along with the inspection.
11. Record compliance with all ADs actually accomplished. Provide sufficient information for the owner to comply with 14 CFR part 91, section 91.417(a)(2)(v). A general statement, such as “All ADs complied with” is NOT an adequate entry and should be avoided. Many owners keep a separate record of AD compliance in the back of the logbook or in a section specifically provided for this record. This is a good place to identify the ADs of a recurring nature and show when the next compliance is required. (Refer to appendix 1, figures 12 and 13, for typical entries.)
12. When approving repairs and alterations, the holder of an IA should be available as work progresses on major jobs. In this way, affected areas and structures can be seen more readily than after completion of the entire job. In many cases, the workmanship can be inspected and improved easier during the process of the job rather than having to redo it later.
13. Remind the owners or operators that they are responsible for operational requirements, such as:
    a. VOR equipment checked in accordance with 14 CFR part 91, section 91.171.
    b. Altimeter and altitude reporting equipment test and inspections in accordance with 14 CFR part 91, section 91.411.
    c. ATC transponder inspection in accordance with 14 CFR part 91, section 91.413. These tests and inspections are not part of the annual inspection.

SAMPLE TEST QUESTIONS AND ANSWERS

1. What ignition system is approved for a Lycoming engine model 0-540-A4A5?

A) Bendix magneto model D6LN-3031.

B) Slick magneto models 662 and 663.

C) Bendix magneto models S6LN-20 and S6LN-21.

Answer: C. Learning Statement: IAR013, Determine design specific.

Note: Old Subject Matter Knowledge Code: Y303. Type Certificate Data Sheet No. E-295, Note 8.

2. A lower horizontal stabilizer streamlined brace is to be repaired by welding. The brace size is 1¼ inch.

The repair should be accomplished using which of the following materials?

A) A round insert tube of the same material, one gauge thicker than the original streamlined tube and a minimum length of 5.01 inch.

B) An outside sleeve of at least the same gauge with a minimum length of 9.128 inches.

C) An inside sleeve of the same streamlined tubing as original with a maximum insert length of 6.43 inches.

Answer: B. Learning Statement: IAR019, Determine repair requirements.

Note: Old Subject Matter Knowledge Code: K49. Advisory Circular (AC) 43.13-1B, chapter 2, paragraph 81; and figure 2.13.

3. Use Airworthiness Directive (AD) AD 80-10-02 to answer this question.

Known Information: Messerschmitt-Bolkow-Blohm Model BO-105 helicopter with tail rotor blade grips P/N 105-31722 installed.

While performing a progressive inspection on this helicopter, you note in the aircraft's records that the last compliance with AD 80-10-02 was at an aircraft time of 5402 hours. The records further indicate that the tail rotor blade grips were replaced at an aircraft time of 4902. What action is required at this inspection with a time of 5502?

A) Compliance is required for paragraph (c)(1)(2).

B) Compliance is required for paragraph (e).

C) Compliance is required for paragraphs (b)(d) and (e).

Answer: C. Learning Statement: IAR020, Interpret data.

Note: Old Subject Matter Knowledge Code: A14. AD 80-10-02.

4. Where can the major items to be inspected be found that must be included in a checklist used while performing an annual inspection on a fixed-wing aircraft?

A) FAA Form 8130-10.

B) 14 CFR part 43, appendix D.

C) AC 43.13-1B.

Answer: B. Learning Statement: IAR016, Determine regulatory requirement.

Note: Old Subject Matter Knowledge Code: K49. 14 CFR part 43, section 43.15(c) states: "Sec. 43.15 Additional performance rules for inspections....

(c) Annual and 100-hour inspections.

(1) Each person performing an annual or 100-hour inspection shall use a checklist while performing the inspection. The checklist may be of the person's own design, one provided by the manufacturer of the equipment being inspected, or one obtained from another source. This checklist must include the scope and detail of the items contained in appendix D to this part and paragraph (b) of this section...."

5. The sight line drawn on material to be bent in a cornice brake is located at what position from the bend tangent line?

A) The setback measurement.

B) The bend radius length.

C) The bend allowance length.

Answer: B. Learning Statement: IAR027, Recall principles of sheet metal forming.

Note: Old Subject Matter Knowledge Code K05. Order 8130.21C. The work must be accomplished by a certificate holder under 14 CFR part 121 or 135, having a continuous airworthiness maintenance program or by a repair station certificated under part 145.

6. When installing additional equipment in an aircraft, if not otherwise specified, the ultimate load factor used in the static load test is

A) four times the weight of the equipment.

B) variable, depending on the direction of applied force.

C) the limit load factor multiplied by 1.5.

Answer: C. Learning Statement: IAR022, Recall alteration/design fundamentals.

Note: Old Subject Matter Knowledge Code: K50. AC 43.13-2A, chapter 1, paragraph 3. Ultimate load factors are limit load factors multiplied by a 1.5 safety factor.

7. Which of the following locations in 14 CFR provides for the fabrication of aircraft replacement and modification parts?

A) 14 CFR part 21, section 21.303.

B) 14 CFR part 23, appendix B.

C) 14 CFR part 45, section 45.21.

Answer: A. Learning Statement: IAR030, Recall regulatory requirements.

Note: Old Subject Matter Knowledge Code A112. 14 CFR part 21, subpart K, section 21.303, defines who may produce modification and replacement parts for sale and those persons to which the part does not apply.

8. A proposed airframe alteration will require a section of Mil-H-8788-10 hydraulic hose to flex through 60° of travel. The system will operate at 210 °Centigrade and 1,200 psi. What is the minimum bend radius for this installation?

A) 3¼ inches.

B) 5½ inches.

C) 7¾ inches.

Answer: B. Learning Statement: IAR013, Determine design specific.

Note: Old Subject Matter Knowledge Code: K49. Acceptable Methods, Techniques, and Practices—Aircraft Inspection and Repair, chapter 10, paragraph d; and figure 10.5.

9. Where would you find the marking and placards required for Cessna Model 208, serial number 20800044?

A) Type Certificate Data Sheet No. A37CE.

B) Airplane Flight Manual, Cessna P/N D1286-13PH.

C) Model 208 Series Maintenance Manual.

Answer: B. Learning Statement: IAR011, Determine correct data.

Note: Old Subject Matter Knowledge Code: A157. 14 CFR Part 23, Subpart G, Operating Limitations and Information.

10. Which of the following aircraft, operating under 14 CFR part 91, could the holder of an inspection authorization approve for return-to-service after a major alteration has been made in accordance with technical data approved by the administrator?

A) A commuter category, multiengine, turbopropeller airplane.

B) A transport category, multiengine, turbojet airplane.

C) Either A or B.

Answer: C. Learning Statement: IAR031, Recall regulatory specific.

Note: Old Subject Matter Knowledge Code: A45. 14 CFR part 65, section 65.95(a). "Sec. 65.95 Inspection authorization: privileges and limitations.

(a) The holder of an inspection authorization may—

(1) Inspect and approve for return to service any aircraft or related part or appliance (except any aircraft maintained in accordance with a continuous airworthiness program) after a major repair or major alteration to it in accordance with Part 43 of this chapter, if the work was done in accordance with technical data approved by the Administrator; and

(2) Perform an annual or perform or supervise a progressive inspection according to §§ 43.13 and 43.15 of this chapter."

APPENDIX 1

SAMPLE FORMS AND LETTERS

Figure 1. FAA Form 8610-1, Mechanic's Application for Inspection Authorization.

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

MECHANIC'S APPLICATION FOR INSPECTION AUTHORIZATION—PRIVACY ACT

Form approved:
OMB No.2120-0022
11/30/07

1. NAME (*last, first, middle)*	2. MECHANIC CERTIFICATE NO.
Doe, John J.	A&P 123455678

3. MAILING ADDRESS (*Number, street, city, and State/County; ZIP Code) (Place at which you desire to receive Airworthiness Directives, etc.)*	4a. FIXED BASE OF OPERATIONS	4B. TELEPHONE NO.
1450 E. Cheltenham Ave. Cleveland County Oklahoma City, OK 73098	PLACE AT WHICH YOU MAY BE LOCATED IN PERSON DURING NORMAL WORKING WEEK Meridian Aviation Downtown Airpark 5060 S. Western Oklahoma City, OK 73452	PLACE AT WHICH YOU MAY BE LOCATED BY TELEPHONE DURING NORMAL WORKING WEEK (405) 555-1876

	YES	NO
5. HAVE YOU HELD A MECHANIC CERTIFICATE WITH BOTH AIRFRAME AND POWERPLANT RATINGS FOR THE 3 YEARS PRECEDING THE DATE OF THIS APPLICATION?	X	
6. HAVE YOU BEEN ACTIVELY ENGAGED, FOR AT LEAST THE 2-YEAR PERIOD BEFORE THE DATE OF APPLICATION IN MAINTAINING AIRCRAFT CERTIFICATED AND MAINTAINED IN ACCORDANCE WITH THE FAR?	X	
7. HAS YOUR MECHANIC CERTIFICATE AND/OR RATINGS BEEN REVOKED OR SUSPENDED DURING THE 3-YEAR PERIOD PRECEDING THIS APPLICATION?		X
8. HAS AN INSPECTION AUTHORIZATION BEEN DENIED YOU WITHIN 90 DAYS PREVIOUS TO THIS APPLICATION? IF ANSWER IS "YES", EXPLAIN IN REMARKS.		X
9. HAVE YOU MET THE MINIMUM REQUIREMENTS FOR RENEWAL OF INSPECTION AUTHORIZATION? *(For Renewal Only)*		

10. BASIS FOR RENEWAL *(Number Performed)*

ALTERATIONS	REPAIRS	ANNUAL INSPECTIONS	PROGRESSIVE INSPECTIONS	RECENT ISSUANCE –IN EFFECT LESS THAN 90 DAYS BEFORE EXPIRATION DATE

11. AIRCRAFT MAINTENANCE ACTIVITY DURING LAST 2 YEARS

DATES	NAME AND ADDRESS OF REPAIR STATION, FACILITY, MANUFACTURER, OPERATOR, ETC.	DESCRIPTION OF ACTIVITY
FROM June 12, 20XX TO PRESENT	Meridian Aviation Downtown Airpark 5077 S. Western Oklahoma City, OK 73458	Inspection, repair and overhaul of single-engine and multiengine aircraft.
FROM TO		
FROM TO		
FROM TO		

12. REMARKS

13. CERTIFICATION: *I certify that the statements made above and in all attachments hereto are correct and true.*

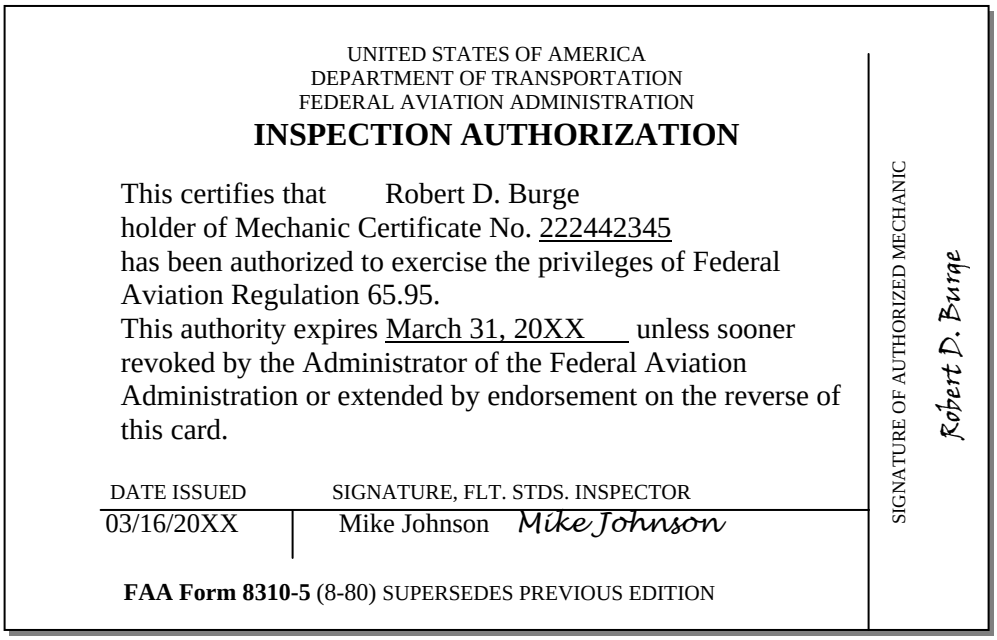
DATE	SIGNATURE OF APPLICANT
March 18, 20XX	John J. Doe

14. RECORD OF ACTION (For FAA use only)

☐ ISSUANCE ☐ VOLUNTARY SURRENDER ☐ ENDORSEMENT ☐ RENEWAL	INSPECTOR'S SIGNATURE	OFFICE IDENTIFICATION

FAA Form 8610-1 (2-78) SUPERSEDES PREVIOUS EDITION

Figure 2. FAA Form 8310-5, Inspection Authorization (front and back views).



UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

INSPECTION AUTHORIZATION

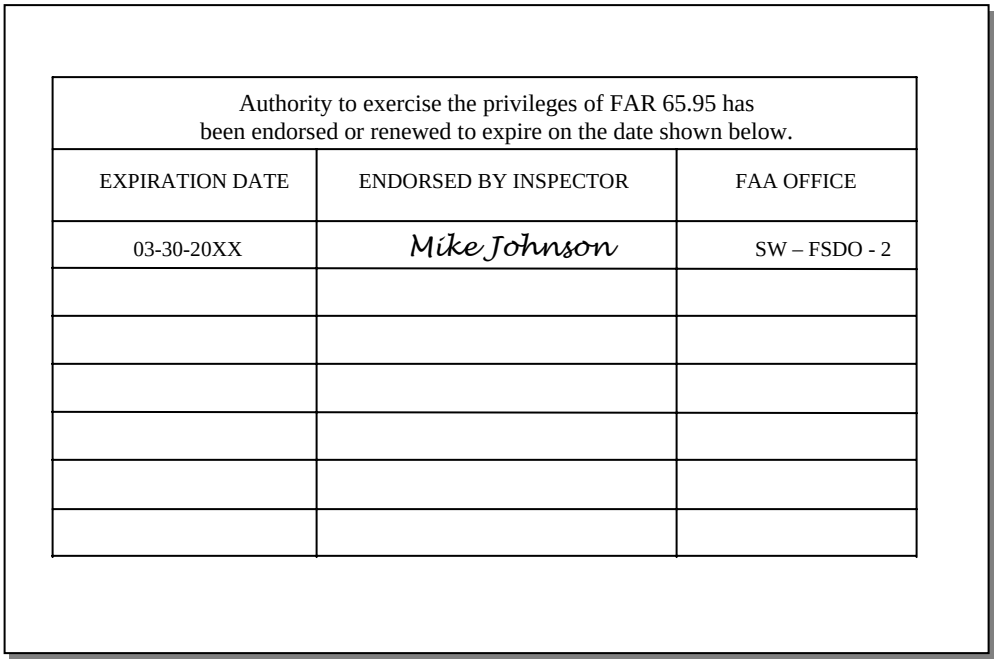
This certifies that Robert D. Burge
holder of Mechanic Certificate No. 222442345
has been authorized to exercise the privileges of Federal Aviation Regulation 65.95.
This authority expires March 31, 20XX unless sooner revoked by the Administrator of the Federal Aviation Administration or extended by endorsement on the reverse of this card.

DATE ISSUED	SIGNATURE, FLT. STDS. INSPECTOR
03/16/20XX	Mike Johnson *Mike Johnson*

FAA Form 8310-5 (8-80) SUPERSEDES PREVIOUS EDITION

SIGNATURE OF AUTHORIZED MECHANIC
Robert D. Burge

Front view showing initial date of authorization



Authority to exercise the privileges of FAR 65.95 has been endorsed or renewed to expire on the date shown below.

EXPIRATION DATE	ENDORSED BY INSPECTOR	FAA OFFICE
03-30-20XX	*Mike Johnson*	SW – FSDO - 2

Back view showing new expiration

Figure 3. FAA Form 337, Major Repair and Alteration (Airframe, Powerplant, Propeller, or Appliance). NOTE: The FAA inspector's data approval for a major repair (block 3). Detailed instructions for the use of FAA Form 337 are in 14 CFR, and Advisor Circular AC 43.9-1F or most recent version.

U.S. Department of Transportation
Federal Aviation Administration

MAJOR REPAIR AND ALTERATION
(Airframe, Powerplant, Propeller, or Appliance)

Form Approved OMB No. 2120-0020 | Electronic Tracking Number

For FAA Use Only

INSTRUCTIONS: Print or type all entries. See Title 14 CFR §43.9, Part 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a))

1. Aircraft	Nationality and Registration Mark N1235J	Serial No. 721-43566	
	Make FleetWing	Model FW200	Series 80
2. Owner	Name (*As shown on registration certificate*) Mike J. Urbach	Address (*As shown on registration certificate*) Address 2414 N. Lincoln City Milltown State OK Zip 73122 Country	

3. For FAA Use Only

The technical data identified herein has been found to comply with applicable airworthiness requirements and is hereby approved for use only on the above aircraft, subject to conformity inspection by a person authorized in section 43.7.

Maria Johnson
Maria Johnson ASI

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
☒	☐	AIRFRAME	———	(*As described in Item 1 above*)	———
☐	☐	POWERPLANT			
☐	☐	PROPELLER			
☐	☐	APPLIANCE	Type Manufacturer		

6. Conformity Statement

A. Agency's Name and Address	B. Kind of Agency		
Name Eugene Henson	X	U.S. Certified Mechanic	☐ Manufacturer
Address 212 SW 66th Street	☐	Foreign Certified Mechanic	C. Certificate No.
City Milltown State OK	☐	Certified Repair Station	A&P 1709665
Zip 73122 Country	☐	Certified Maintenance Organization	

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Extended range fuel Per 14 CFR Part 143 App. B ☐

Signature/Date of Authorized Individual *Eugene Henson*
March 2 – 20XX Eugene Henson

7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is ☒ Approved ☐ Rejected

BY	☐	FAA Flt. Standards Inspector	Manufacturer	☐	Maintenance Organization	☐	Persons Approved by Canadian Department of Transport
	☐	FAA Designee	Repair Station	X	Inspection Authorization		Other (*Specify*)

Certificate or Designation No.A&P 9486717 IA

Signature/Date of Authorized Individual *Martin M. Sawyer*
April 2 – 20XX Martin M. Sawyer

FAA Form 337 (10-06) (front view)

Figure 3. FAA Form 337, Major Repair and Alteration (Airframe, Powerplant, Propeller, or Appliance). (continued)

NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. Description of Work Accomplished

(*If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date completed.)*

N12345J	03/02/20XX
Nationality and Registration Mark	Date

Aircraft Total Time 6,210 hours

1. Removed horizontal stabilizer from aircraft and opened top and bottom skin at rear spar. Removed cracked rear spar and replaced with new spar (part number FW10204-56) in accordance with FleetWing structural repair manual No. 410, chapter 2, and figure 9-12. Original rivet pattern and type (MS20470AD3-4) were maintained.

   DATE: 02/25/20XX, inspected repair work to interior of horizontal stabilizer prior to closure of top skin. Found repair to be in accordance with data indicated and ready for final closure. An inspection of the complete interior of the stabilizer for hidden damage and condition at this time revealed no damage and good structural condition.

   Martin M. Sawyer

   Martin M. Sawyer, A&P 9486717 IA

2. Primed interior of stabilizer and closed upper skin. Installed on aircraft, rigged elevator and operationally checked in accordance with manufacturer's maintenance manual (FW4490).

3. No change in weight and balance.

END

☐ Additional Sheets Are Attached

FAA Form 337 (10-06) (back view)

Figure 4. Example of Airworthiness Annual Inspection Maintenance Record Entry.

March 22, 20XX

Total Aircraft Time 1502.0 Hours

Tach Time 972.4 Hours

I certify that this aircraft has been inspected in accordance with an annual inspection as per Air Tractor AT502 owner's manual and was determined to be in an airworthy condition.

Joseph P. Kline
A&P 123467899 IA

NOTE: This is an example of a record entry for an **annual inspection** determining the aircraft to be in "airworthy" condition. The date, aircraft total time, and tach or recorder reading are included. The tach or recorder readings should not be confused with the total time and should only be shown in **addition** to the total time entry. The mechanic's certificate number is suffixed by the letters "IA" indicating that the mechanic is the holder of an inspection authorization. Maintenance done in conjunction with the inspection should be entered as a separate entry.

Figure 5. Airworthiness Directive Compliance Record (Suggested Format).

AD NOTES COMPLIANCE RECORD

Page 1 of 1 Date 12/02/2000

Registration Number N937JM Aircraft Make/Model FleetWing FW-25-200 Serial Number 2842015
Aircraft Certification Date 07/12/2000

Engine Model Lycoming 0-320-D3G Serial Number L-7656-38A

AD#	Revision Date	Applicable S.B. # & Subject	Date & Hours @ Compliance	Method of Compliance	One Time	Recurring	Next Comp. @ Hrs/Date	Authorized Signature, Type and Number
2008-26-13		Inspect Oil Cooler Hose	5/27/96 3102 hours	Replaced hose assembly with TSO 53a, type D hose. 100 hour recurrent inspection on longer required.			N.A.	*Bill Jenkins* A&P 23453322 IA
2005-20-20R1	Oct. 10, 2005	Inspect fuel cells I/A/W SB 1134	12/14/2005 2823 hours	Inspected in accordance with FleetWing service bulletin 1134 sections A and B.	X		No further action required.	*Joe Kline* A&P 123467899 IA
2001-02-03		Fuel quantity indicators.	02/15/2001 502 hours	Replaced right and left fuel quantity indicators per AD paragraph B 2.	X		No further action required.	*Jimmy Miller* A&P 23244411
2000-26-01		Inspect flap jackscrew I/A/W SB1002	02/15/2001 502 hours	Inspected in accordance with FleetWing SB1002.		X	Inspection required each 3000 hours.	*Jimmy Miller* A&P 23244411

Figure 6. FAA Form 8010-4, Malfunction or Defect Report.

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

MALFUNCTION OR DEFECT REPORT

OPER. Control No.

ATA Code 8120

1. A/C Reg. No 6696J

Enter pertinent data	**MANUFACTURER**	**MODEL/SERIES**	**SERIAL NUMBER**
2. **AIRCRAFT**	Cessna	421B	421B79485
3. **POWERPLANT**	Continental	GTSIO520L	C216977
4. **PROPELLER**	McCauley	3AF34C92	42279

5. SPECIFIC PART (of component) CAUSING TROUBLE

Part Name	MFG. Model or Part No.	Serial No.	Part/Defect Location
Wastegate shaft	Garrett PN 4166952	NA	Left engine wastegate

6. APPLIANCE/COMPONENT (Assembly that includes part)

Comp/Appl Name	Manufacturer	Model or Part No.	Serial Number
Wastegate	Garrett	480164-10	1121
Part TT	Part TSO	Part Condition	7. Date Sub.
1222 hrs	NA	warped	1-22-20XX

8.Comments *(Describe the Malfunction or defect and the circumstances under which It occurred. State probable cause and recommendations to prevent recurrence.)*

Pilot reported loss in aircraft's critical altitude. Inspection revealed the left engine's wastegate shaft warped and binding. The shaft's freedom of travel was also found to be partially restricted due to carbon buildup in the bearings. This is possibly a contributing factor in the warping. Recommend lubricating wastegate valve with approved lubricant such as Mouse Milk or WD-40 when shaft is cool.

Optional Information:

Check a box below, if this report is related to an aircraft

☐ Accident; Date _____ ☐ Incident; Date_____

DISTRICT OFFICE	OPERATOR DESIGNATOR
OTHER	
COMMUTER	
FAA	
MFG	
AIR TAXI	
MECH X	
OPER	SUBMITTED BY: Mike Merritt
REP. STA	TELEPHONE NUBMER: (429)555-6219

FAA FORM 8010-4 (10-92) SUPERCEDES PREVIOUS EDITIONS

NOTE: This is a typical FAA Form 8010-4 (revised 10-92). The holder of an IA is urged to use this form for all malfunctions or defects that cannot be attributed to poor maintenance procedures. Provide the information requested on the form. Note that item 8 requests information concerning how the defect can be corrected. The form may be obtained at the local Flight Standards District Office or on line at the FAA's website (www.FAA.gov). At the website the form is found under the tab "Aircraft" and under the heading "Advisories & Guidance—Service Difficulty Reports (SDR)". The form may be e-mailed, faxed, or mailed to the addresses or telephone fax number noted under Service Difficulty Reporting System (SDRS) Submissions on the website.

Figure 7. Example of Operating Limitations Placard.

Operating Limitations:	Zeph-Air 63-1A N40023
RPM	Do not exceed 2300
Oil temperature	212° max.
Airspeed limits do not exceed:	
Level flight or Climb	95 Knots
Glide or Dive	130 Knots
Gross weight	1200 lbs
Empty CG	14.4 inches aft of datum
Useful load	453 lbs
Kinds of Operation	VFR - Day

Figure 8. Example of Annual Inspection Record Entry for Aircraft Found Unairworthy.

March 22, 20XX

Total Aircraft Time 3202.5 Hours

Hobbs Meter Reading 975.5 Hours

I certify that this aircraft has been inspected in accordance with an annual inspection and a list of discrepancies and unairworthy items dated March 22, 20XX have been provided for the aircraft owner.

Joseph P. Kline
A&P 1123456789 IA

Figure 9. Example of Discrepancy List for Aircraft Owner When Reporting Aircraft with Unairworthy Items After Completing Annual Inspection.

Academy Aviation
Hangar 4
North Philadelphia Airport
Philadelphia, PA 19114

Mr. Morris McCall
1450 W. Cheltenham Ave.
Philadelphia, PA 19125

Mr. McCall:

This is to certify that on March 22, 20XX, I completed an annual inspection on your aircraft, Condor 191B, S/N 3945, N1234, and found the following unairworthy items:

1. Compression in No. 3 cylinder read 30 over 80, which is below the manufacturer's recommended limits.

2. The muffler has a broken baffle plate which is blocking the engine exhaust outlet.

3. There is a 6-inch crack on bottom of the left wing just aft of the main landing gear attach point.

Jospeh P. Kline
A&P 123456789 IA

Figure 10. Example of Weight and Balance Revision for Typical Light, Single-Engine Aircraft.

Weight and Balance Revision **Date: 05/06/20XX**

N44933 Cessna 182L **Supersedes Computations found on FAA Form 337, dated 10/22/20XX.**

Serial Number 18234329

Removed the following equipment:	Weight	Arm	Moment
1. Turn coordinator P/N C661003-0211	2.5 lb	15.0	37.5
2. Directional gyro P/N 0760099	+3.12	13.5	+42.12
Total	5.62		79.62
	1709.60	35.26	60282.20
	−5.62		−79.62
Aircraft after removal	1703.98	35.20	60202.58

Installed the following equipment:	Weight	Arm	Moment
1. Vector2 Autopilot system including turn coordinator and directional gyro.	13 lb	32.7	425.13
	1703.98		60202.20
	+13.00		+425.13
***REVISED LICENSED EMPTY WEIGHT**	**1716.98**		**60627.71**

*** NEW USEFUL LOAD 1083.02**

Forward Limit Check (Limit +38.4)

	Wt.	Arm	Moment
A/C Empty	1716.98	35.31	60627.21
Fwd. Seats	170.00	36.00	6120.00
Aft. Seats			
Fuel (min.)	115.00	48.00	5520.00
Oil	22.00	−15.00	−330.00
Baggage			
	2023.98	35.5	71937.71

Rearward Limit Check (Limit +47.4)

	Wt.	Arm	Moment
A/C Empty	1716.98	35.31	60627.21
Fwd. Seats	170.00	36.00	6120.00
Aft. Seats	340.00	71.00	24140.00
Fuel (max)	360.00	48.00	17280.00
Oil	22.00	−15.00	330.00
Baggage	120.00	97.00	11640.00
	2728.98	43.78	119477.71

Joseph P Kline

Joseph P Kline
A&P 123456789 IA

Note: Computations are shown. Form is signed, dated, and identifies the computations or figures it supersedes. It is recommended that manufacturer's weight and balance data forms be used for specific aircraft.

Figure 11. Example of One-Time Airworthiness Directive Compliance Entry.

July 12, 20XX

Aircraft Total Time 1566 Hours

Complied with Airworthiness Directive (AD) 20XX-12-10R1, effective date June 30, 20XX. Modified the airplane by compliance with paragraph 2(b) of AD. Installed FleetWing Service Kit SK 1910 as required by AD. No recurring action required.

Bill Quinlan
A&P 143298671

Figure 12. Example of Recurrent Airworthiness Directive Compliance Entry.

May 23, 20XX

Engine Total Time 720 Hours

Complied with Airworthiness Directive (AD) 20XX-10-12, Alcon Turbo Chargers by inspection as required by paragraphs (b) through (g) of AD. Turbine housing found satisfactory, next inspection due at 920 hours.

Joe Knight
A&P 279387792

APPENDIX 2

PUBLICATIONS AND TECHNICAL DATA

PUBLICATIONS AND TECHNICAL DATA

The following publications and technical data provide information for aircraft inspection.

TITLE 14 OF THE CODE OF FEDERAL REGULATIONS (14 CFR)

The Code of Federal Regulations is a codification of the general and permanent rules published in the Federal Register by the Executive departments and agencies of the Federal Government. The Code is divided into 50 titles, which represent broad areas subject to Federal regulation. Each title is divided into chapters, which usually bear the name of the issuing agency. Title 14—Aeronautics and Space is composed of four chapters. Chapter I of this title is the Federal Aviation Administration, Department of Transportation (DOT). This chapter contains parts 1–199.

The following CFR parts are of particular interest to the holder of an inspection authorization.

PART	TITLE
1	Definitions and Abbreviations
11	General Rulemaking Procedures
21	Certification Procedures for Products and Parts
23	Airworthiness Standards: Normal, Utility, Acrobatic, and Commuter Category Airplanes
25	Airworthiness Standards: Transport Category Airplanes
27	Airworthiness Standards: Normal Category Rotorcraft
29	Airworthiness Standards: Transport Category Rotorcraft
31	Airworthiness Standards: Manned Free Balloons
33	Airworthiness Standards: Aircraft Engines
35	Airworthiness Standards: Propellers
39	Airworthiness Directives
43	Maintenance, Preventive Maintenance, Rebuilding, and Alteration
45	Identification and Registration Marking
47	Aircraft Registration
65	Certification: Airmen Other Than Flight Crewmembers
91	General Operating and Flight Rules
119	Certification: Air Carriers and Commercial Operators
125	Certification and Operations: Airplanes Having a Seating Capacity of 20 or More Passengers or a Maximum Payload Capacity of 6,000 Pounds or More

135 Operating Requirements: Commuter and On-Demand Operations and Rules Governing Persons on Board Such Aircraft

183 Representatives of the Administrator

The official FAA copy of the Code of Federal Regulations may be obtained from the Regulatory and Guidance Library at the Federal Aviation Administration Web site at www.faa.gov or the U.S. Government Printing Office (GPO) Web site at www.access.gpo.gov.

TYPE CERTIFICATE DATA SHEETS AND SPECIFICATIONS

Type Certificate Data Sheets and Specifications (TCDS) set forth essential factors and other conditions, which are necessary for U.S. airworthiness certification. Aircraft, engines, and propellers which conform to a U.S. type certificate (TC) are eligible for U.S. airworthiness certification when found to be in a condition for safe operation and ownership requisites are fulfilled. There are two kinds of certification documents contained in the TCDS file:

1. Type Certificate Data Sheets
2. Specifications

Type Certificate Data Sheets were originated and first published in January 1958. 14 CFR part 21, section 21.41, indicates they are part of the type certificate. As such, a type certificate data sheet is evidence the product has been type certificated. Generally, type certificate data sheets are compiled from details supplied by the type certificate holder; however, FAA may request and incorporate additional details when conditions warrant.

Specifications were originated during implementation of the Air Commerce Act of 1926. Specifications are FAA recordkeeping document issued for both type certificated and non-type-certificated products which have been found eligible for U.S. airworthiness certification. Although they are no longer issued, specifications remain in effect and will be further amended. Specifications covering type certificated products may be converted to type certificate data sheets at the option of the type certificate holder. However, to do so requires the type certificate holder to provide an equipment list. A specification is not part of a type certificate.

The official FAA copy is available on the Internet at the FAA Web site titled Regulatory and Guidance Library at rgl.faa.gov. This is a free service.

SUMMARY OF AIRWORTHINESS DIRECTIVES FOR SMALL AIRCRAFT AND ROTORCRAFT

An airworthiness directive (AD) contains information regarding an unsafe condition that exists in an aircraft, aircraft engine, propeller, or appliance when that condition is likely to exist or develop in other products of the same type design. No person may operate a

product to which an AD applies, except in accordance with the requirements of the AD. All ADs are summarized and issued by the FAA. New and revised ADs are published bi-weekly and mailed to registered owners of effected equipment and subscription holders. Airworthiness directives are issued in two weight categories:

1. Small aircraft with a maximum certificated takeoff weight aircraft of 12,500 pounds or less, and all rotorcraft regardless of weight
2. Large aircraft over 12,500 pounds maximum certificated takeoff weight

Each of these categories is presented in three books. Included in these books are the airframe ADs and the ADs applicable to the engines, propellers, and appliances of the category.

The official FAA copy is available on the Internet at the FAA Web site titled Regulatory and Guidance Library (RGL) at rgl.faa.gov.

The ADs are totally searchable and easily located. The individual airworthiness directives and the AD bi-weeklies on the RGL Web site are considered official FAA copy and may be used in lieu of purchasing paper copies. This is a free service. Questions concerning the RGL may be directed to the Delegation & Airworthiness Programs Branch (AIR-140) at (405) 954-4103.

ADVISORY CIRCULARS

The Federal Aviation Administration issues advisory circulars to inform the aviation public in a systematic way 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 numerical part of the subject regulation (AC 39-7 would therefore deal with a subject related to 14 CFR part 39 or Airworthiness Directives).

An advisory circular is issued to provide guidance and information in a designated subject area or to show a method acceptable to the Administrator for complying with a related 14 CFR part. Electronic versions (as revised) are available on the Internet at the FAA Web site.

- AC 39-7, Airworthiness Directives
- AC 43-4, Corrosion Control for Aircraft
- AC 43-11, Reciprocating Engine Overhaul Terminology and Standards
- AC 43.13-1, Acceptable Methods, Techniques and Practices—Aircraft Inspection and Repair
- AC 43.13-2, Acceptable Methods, Techniques, and Practices—Aircraft Alterations
- AC 43-9, Maintenance Records
- AC 43.9-1, Instructions for Completion of FAA Form 337 Major Repair and Alteration (Airframe, Powerplant, Propeller, or Appliance)

- AC 43-210, Standardized Procedures for Requesting Field Approval of Data, Major Alterations, and Repairs
- AC 91-67, Minimum Equipment Requirements for General Aviation Operations Under FAR Part 91

OTHER PUBLICATIONS

Additional information of particular interest to the holder of an inspection authorization can be found in FAA-H-8083-1, Aircraft Weight and Balance Handbook.

ADDITIONAL SOURCES OF INSPECTION DATA

Several commercial publisher offer subscription services that include the Airworthiness Directives, Advisory Circulars, and Type Certificate Data Sheets along with other inspection data. They may be found in aviation trade paper and magazines.