

INSPECTION AUTHORIZATION KNOWLEDGE TEST GUIDE



U.S. Department of Transportation
Federal Aviation Administration

INSPECTION AUTHORIZATION KNOWLEDGE TEST GUIDE

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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 of application, in maintaining aircraft certificated and maintained in accordance with this chapter;
- (3) Have a fixed base of operations at which he or she may be located in person or by telephone during a normal working week, but it need not be the place where he or she will exercise his inspection authority;
- (4) Have available 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 the 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 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 "Training and Testing." You will then need to schedule a test date and make financial arrangements for test payment. 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 Training and Testing 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 the Publications and Technical Data section.
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.

SAMPLE TEST QUESTIONS AND ANSWERS

1. What ignition system is approved for a Lycoming engine model O-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: C. 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."

PUBLICATIONS AND TECHNICAL DATA

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

FAA-G-8082-19, Inspection Authorization (IA) Guide

This information manual provides guidance for persons who conduct annual and progressive inspections and approve major repairs and/or major alterations of aircraft. The information is primarily intended for mechanics that hold an IA. This manual stresses the important role that certificated mechanics that hold an IA have in air safety.

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 rql.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.