

**PARACHUTE  
RIGGING**



**SENIOR  
MASTERS**

**COMMUNICATION  
COURSE**

**U. S. DEPARTMENT  
OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION**

# PARACHUTE RIGGER

## CERTIFICATION GUIDE

### SENIOR/MASTER PARACHUTE RIGGER



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1975

U.S. Department of Transportation  
Federal Aviation Administration

## PREFACE

This guide was prepared by Flight Standards Service, Federal Aviation Administration, to provide information to persons interested in becoming certificated parachute riggers. The guide provides information on how to apply for a parachute rigger certificate and ratings, and assists the applicant in preparing for the written, oral, and practical tests.

The requirements for parachute rigger certificates and ratings, and the privileges and performance standards for certificated parachute riggers are prescribed in Federal Aviation Regulation Part 65, "Certification: Airmen Other Than Flight Crewmembers." Any person who applies and meets the requirements is entitled to a parachute rigger certificate. Briefly, the requirements are concerned with age, language ability, experience, knowledge, and skill.

The various sections in this guide explain the procedures for either substantiating or demonstrating that each requirement has been met. The sections that deal with the written test (to demonstrate knowledge) and the oral and practical tests (to demonstrate skill) describe the type of tests used and what they contain.

Comments regarding this publication should be directed to the Department of Transportation, Federal Aviation Administration, Flight Standards Technical Division, ACC-230, P.O. Box 25082, Oklahoma City, Oklahoma 73130.

## CONTENTS

	<i>Page</i>
<b>Preface</b> .....	iii
<b>Parachute Rigger Certificates and Ratings</b> .....	1
Certificates and Ratings .....	1
General Requirements .....	1
Experience Requirements .....	2
Knowledge and Skill Requirements .....	2
Certificate Privileges .....	3
<b>Application Procedures</b> .....	4
How to Apply .....	4
<b>The Written Tests</b> .....	6
Taking the Written Tests .....	6
Scoring the Tests .....	8
Reporting Scores .....	8
Applying for a Retest .....	9
Written Test Subjects .....	9
Practice Test .....	11
Practice Test Answer Sheet .....	16
Answers to Practice Test Questions .....	17
<b>Oral and Practical Tests</b> .....	18
Taking the Oral and Practical Tests .....	18
Evaluating Your Performance .....	19
Oral Test Questions .....	20
Packing Parachutes .....	20
Maintaining Parachutes .....	23
Practical Test Projects .....	26
Packing Parachutes .....	27
Maintaining Parachutes .....	28
<b>Scoring Oral and Practical Tests</b> .....	29
<b>Permanent Certificate Issuance</b> .....	30
<b>Parachute Rigger Seal Symbols</b> .....	30
<b>Recommended Study Materials</b> .....	31
Federal Aviation Regulations (FAR) .....	31
FAA Advisory Circulars .....	32

## Appendix

FAA Regional Offices and Flight Standards	
District Offices -----	33
Map Showing FAA Regions -----	44

## **PARACHUTE RIGGER CERTIFICATES AND RATINGS**

### ***Certificates and Ratings***

Federal Aviation Regulations, Part 65, Certification: Airmen Other Than Flight Crewmembers, provides for the issuance of two parachute rigger certificates: (1) senior parachute rigger and (2) master parachute rigger. Part 65 also provides for four type ratings: (1) seat, (2) back, (3) chest, and (4) lap. Each senior parachute rigger applicant must meet the requirements for at least one rating, and each master parachute rigger applicant must meet the requirements for at least two ratings to be issued a certificate. Parachute riggers may exercise their privileges only on parachutes for which they are rated. Parachute rigger certificate eligibility requirements vary with the type of certificate sought (senior or master) and the applicant's background (military vs civil).

### ***General Requirements***

Section 65.113 of the Federal Aviation Regulations (FAR) states:

“(a) To be eligible for a parachute rigger certificate, a person must—

- (1) Be at least 18 years of age;
- (2) Be able to read, write, speak and understand the English language, or in the case of a citizen of Puerto Rico, or a person who is employed outside of the United States by a U.S. air carrier, and who does not meet this requirement, be issued a certificate that is valid only in Puerto Rico or while he is employed outside of the United States by that air carrier, as the case may be; and

(3) Comply with the sections of this subpart that apply to the certificate and type rating he seeks.

“(b) Except for a master parachute rigger certificate, a parachute rigger certificate that was issued before, and was valid on, October 31, 1962, is equal to a senior parachute rigger certificate, and may be exchanged for such a corresponding certificate.”

### ***Experience Requirements***

Section 65.115 of the FARs provides that applicants for a senior parachute rigger certificate must have packed at least 20 parachutes of each type for which a rating is sought. The parachute must have been packed in accordance with the manufacturer's instructions and under the supervision of a certificated parachute rigger who holds a rating for that type or by a person holding an appropriate military rating.

Applicants for a master parachute rigger certificate must have had at least 3 years of experience as a parachute rigger and have satisfactorily packed at least 100 parachutes of each of two types in common use, in accordance with the manufacturer's instructions.

### ***Knowledge and Skill Requirements***

Section 65.115 of the FARs provides that senior parachute rigger applicants are required to take a written test. They are also required to take an oral and practical test after passing the written test. Military riggers, former military riggers, and civilian employees of a regular armed force who meet the regulatory requirements may take a special written test on the regulations of FAR Part 65, Subpart F. Evidence to establish their eligibility under this special certification rule (FAR 65.117) may be submitted in the form of letters, official records, or other documents, within 12 months after discharge.

Master parachute rigger applicants are required to take a written test unless they hold a senior parachute

rigger certificate. They are also required to take an oral and practical test, which may be taken after showing they meet the other requirements.

### ***Certificate Privileges***

A certificated senior parachute rigger may pack or maintain (except for a major repair) any type of parachute for which he is rated. He may also supervise other persons in packing any type of parachute for which he is rated. A certificated master parachute rigger may pack, maintain, or alter any type of parachute for which he is rated. Additionally, he may supervise other persons in packing, maintaining, or altering any type of parachute for which he is rated.

Since regulations are amended from time to time, you should check with the local FAA office to ascertain the currency of referenced regulations.



## APPLICATION PROCEDURES

### *How to Apply*

Contact the nearest General Aviation District Office, Flight Standards District Office, or International Field Office for an appointment to have your experience evaluated. An FAA inspector will determine if you are eligible to take the tests. This evaluation is necessary when applying for an original certificate, or when adding a rating. FAA district office addresses are listed in the Appendix.

When appearing for evaluation, bring your records and any other evidence you have to substantiate your experience. Letters from present or former employers, military service records, business records, log books, etc., are acceptable as long as the inspector who reviews it is able to determine that the type and amount of experience meets the regulatory requirements.

The evidence of packing experience must contain the following information:

- (a) Name of the person who did the packing.
- (b) Type and number of parachutes packed.
- (c) Packing dates.
- (d) A statement that the parachutes were packed under the supervision of a certificated and appropriately rated parachute rigger or a person holding an appropriate military rating, including the name, certificate number, and ratings of the person who supervised the packing.

When the FAA inspector determines that you meet the general and experience requirements, you will be eligible to take the written test. You may be permitted to take the written test that same day if sufficient time remains for completing it. If time does not permit, or if you are unable to take the test at that time, you may

request the FAA inspector to issue an *FAA Form 8060-7, Airman's Authorization for Written Test*. The completed form can be presented as proof of eligibility when applying for the written test at a later date.

## THE WRITTEN TESTS

### *Taking The Written Test*

The written test can be taken at FAA Flight Standards District Offices and at some Flight Service Stations. *Air Carrier District Offices have no provision for administering parachute rigger written tests.* Flight Standards District Offices may administer written tests at other locations by prior arrangement, and some Flight Service Stations administer written tests after the normal work-day and on weekends. Contact the local FAA Flight Standards District Office for information about the time and place where tests are administered. It is recommended that an appointment be made before the intended date of testing so that the appropriate personnel will be on hand to give the tests and to assure that space is available.

You must begin the test early enough to complete it within the time allotted and before office closing time. One hour is allowed for taking the Senior Parachute Rigger—Military Competence written test. Two hours each are allowed for the Senior Parachute Rigger and Master Parachute Rigger written tests. If you have not had your experience evaluated at an earlier date, arrive at the office early enough to allow additional time for the determination to be made.

When eligibility to take the test is confirmed, a written test application form, a test booklet, and all the materials necessary to take the test will be issued. You are not required to furnish any test or reference material, nor permitted to use or take notes during the tests.

Before you begin the written test, you will be asked to show personal identification and to provide certain information on the application form. This information is necessary to match your answer sheet with your application so your scores can be accurately reported. Prior to filling in any part of the application form, read the

instructions carefully, then fill in the form. Everything should be printed except your signature, which should be written just as you would sign a business letter.

Make certain you completely understand the instructions for taking the test and how to mark the special answer sheet, as it will be machine scored. If more than one answer to a question is marked, or no answer is marked, the question will be scored as incorrect. Stray marks on the sheet may also cause the questions to be scored as incorrect.

When taking the test, always keep the following facts in mind:

- (1) There are no "trick" questions. Each statement means exactly what it says. Do not look for hidden meanings. The statement does not concern *exceptions* to the rule; *it refers to the general rule.*
- (2) Be sure you read the entire question carefully before looking at the answers; avoid hasty assumptions. This can lead to a completely erroneous approach to the problem or failure to consider vital words. Then look through the list of alternative answers and find the one that best answers the question.
- (3) Only one of the answers is completely correct. The others may be answers that result from using the incorrect procedures, from wrong interpretations of the question, or from misconceptions about the subject matter. Understand the question and then select the alternative you consider to be the best answer.
- (4) If you find that you have considerable difficulty with a question, do not spend too much time on it but go on to the next question. When you have completed the test, go back to the questions which you have passed over. This procedure will enable you to use the time available to the best advantage in demonstrating your knowledge and understanding of the subject. Be sure you mark an answer for each question.

## ***Scoring the Tests***

If you qualify under the special certification rule for military riggers or former military riggers, the test administered to you is graded in the General Aviation District Office where the test is taken. If you pass the test, you will be issued a "Temporary Airman Certificate" (FAA Form 8060-4), since no oral or practical test is required. If a passing grade of 70 percent is not obtained, a "Notice of Disapproval of Application" (FAA Form 8060-5) will be issued to you. This form should be presented when applying for retesting.

All other parachute rigger written tests are mailed to the FAA Aeronautical Center in Oklahoma City where they are scored by electronic test-scoring machines. Strict procedures are followed to insure the accuracy of scoring.

## ***Reporting Scores***

Test results will be mailed to you as quickly as possible. The test grade is reported on AC Form 8060-37, Airman Written Test Report. This form is acceptable evidence of having passed the written test and must be presented when applying for a certificate. It must also be presented when applying for retesting in the event of failure.

In addition to grade information, the written test report provides a coded print-out of the subject areas in which questions were answered wrong. The subject area codes correspond to the subject headings shown on the "Written Test Subject Outline," which is mailed along with the written test report, and to the written test subject headings used in this guide.

If the test report is lost or destroyed, a duplicate copy may be obtained by sending \$1.00 (money order or check payable to FAA) to the Federal Aviation Administration, Airman Certification Branch, AAC-260, P.O. Box 25082, Oklahoma, City, Oklahoma 73125. Give your name, social security number, title of test, the location where it was taken, and the approximate date of the test.

### ***Applying for a Retest***

If you fail a parachute rigger test, you must wait 30 days to retake the test; or, if you desire to take the test sooner, you must present a statement from a certificated and appropriately rated parachute rigger or a person holding an appropriate military rating, certifying that he has given you at least 5 hours of additional instruction in each of the subjects failed and now considers you ready for retesting.

### ***Written Test Subjects***

The subjects covered by the parachute rigger written tests are outlined below. The special test administered to military or former military riggers deals only with the first two categories, Certification and Privileges, Limitations, and Operating Rules. All other applicants for a senior parachute rigger written test should be prepared to answer questions in all subject areas listed except the last category, Parachute Alteration. Master parachute rigger applicants will be asked questions in all subject areas.

#### **A. CERTIFICATION**

AO1 - Experience requirements.

AO2 - Skill requirements.

AO3 - Type ratings.

AO4 - Test requirements.

AO5 - Adding type ratings.

#### **B. PRIVILEGES, LIMITATIONS, AND OPERATING RULES**

BO1 - Certificate privileges.

BO2 - Facilities and equipment.

BO3 - Performance standards.

BO4 - Records.

BO5 - Pack sealing.

BO6 - Parachute repair.

BO7 - Parachute alteration.

BO8 - Intentional parachute jumping.

## **C. PACKING PARACHUTES**

- CO1 - Requirements.
- CO2 - Preparation.
- CO3 - Inspection.
- CO4 - Folding and stowing.
- CO5 - Closing, finishing, and sealing.

## **D. PARACHUTE OPERATION AND CARE**

- DO1 - Function of parts and assemblies.
- DO2 - Handling and storage.
- DO3 - Airing and drying.
- DO4 - Safety practices.
- DO5 - Forces acting on a parachute.

## **E. PARACHUTE CONSTRUCTION DETAILS**

- EO1 - Pilot chute.
- EO2 - Main canopy.
- EO3 - Container.
- EO4 - Release devices.
- EO5 - Suspension lines.
- EO6 - Harness.
- EO7 - Parachute hardware.
- EO8 - Parachute specifications.

## **F. PARACHUTE REPAIR**

- FO1 - Repair standards.
- FO2 - Canopy repair.
- FO3 - Harness repair.
- FO4 - Miscellaneous repairs.
- FO5 - Sewing and stitching.
- FO6 - Sewing machines.
- FO7 - Hardware repair.
- FO8 - Cleaning parachutes.
- FO9 - Container repair.

## **G. PARACHUTE ALTERATION**

- GO1 - Alteration standards.
- GO2 - Canopy alteration.
- GO3 - Harness alteration.
- GO4 - Hardware alteration.
- GO5 - Container alteration.

## ***Practice Test***

The practice test which follows is provided to familiarize you with the type of test questions contained in the FAA parachute rigger written tests. It is important to remember that the practice test does not cover all of the subjects on which you will be tested. For this reason, you should acquire knowledge in all the written test subjects, not just the answers to these few sample test questions.

Each question is followed by four suggested answers. In each case, select the one that best answers the question and then blacken the corresponding space on the "Practice Test Answer Sheet," which follows the practice test. Answers to the practice test are shown on page 16.

1. After packing a parachute intended for emergency use in a civil aircraft, a certificated parachute rigger shall enter which of the following on the packing record attached to the parachute?
  1. The parachute retirement date, packing date, and his signature.
  2. His signature, date, and place of packing.
  3. His certificate number and signature, the date and place of packing, and a notation of any defects found.
  4. The date, his certificate number, seal symbol, and signature.
2. When packing a parachute, what determines the width of the canopy folds?
  1. The width of the pack.
  2. The diameter of the canopy.
  3. The number of suspension line channels.
  4. The width of the suspension line retainers.
3. What is the minimum period of time that an applicant for a senior parachute rigger certificate shall have served as a parachute rigger?
  1. Two years.
  2. Three years.
  3. For at least 90 days within the preceding 12 months.
  4. There is no minimum time specified.



4. When laying out a seat- or back-type parachute for packing, how should the harness be placed with reference to body position of the wearer?
  1. Face down with the head away from the canopy.
  2. Face up with the head away from the canopy.
  3. Face down with the head toward the canopy.
  4. Face up with the head toward the canopy.
5. How long should a parachute be aired prior to packing?
  1. Allow 1 hour of airing for each day the parachute was packed.
  2. Four hours, provided the parachute is not wet.
  3. It should be aired at least 8 hours.
  4. Until the parachute has been thoroughly dried.
6. Which of the following statements are true? (1) Filler yarns in the weave of parachute canopies extend lengthwise through the material. (2) When applying a patch, the patch material filler yarns must be matched with those of the canopy.
  1. Only statement (1) is true.
  2. Only statement (2) is true.
  3. Neither statement (1) nor (2) is true.
  4. Both statements (1) and (2) are true.
7. Which component of the sewing machine used for parachute repair work prevents the thread from becoming tangled around the needle as it travels through the material?
  1. The needle bar.
  2. The thread takeup lever.
  3. The thread controller spring.
  4. The action of the sewing hook.
8. How long must a certificated rigger retain a record of the packing, maintenance, or alterations performed or supervised by him?
  1. At least 2 years after the date the work is completed.
  2. At least 1 year after the date the work is performed.

3. At least 2 years after the date the parachute is disposed of.
  4. Until notified by the FAA that he may dispose of them.
9. After packing a parachute, how does a certificated parachute rigger seal each pack?
1. The safety tie is sealed with the rigger's individual seal in accordance with the manufacturer's instructions.
  2. The safety tie is sealed with the parachute loft seal in accordance with the manufacturer's recommendations.
  3. The safety tie is sealed by securing the pack elastics in their respective positions.
  4. The safety tie is sealed with the seal symbol issued by the parachute manufacturer.
10. In addition to meeting the experience requirements, what other requirements must be met by a member of an Armed Force of the United States who applies for a senior parachute rigger certificate?
1. Pass an oral and practical test.
  2. Pass a written test with respect to parachutes in common use.
  3. Present evidence to the FAA that he holds the equivalent military rating.
  4. Pass a written test on the Federal Aviation Regulations.
11. According to FAR Part 65, when a parachute rigger exercises the privileges of his certificate, he must have available to him a compartment for hanging parachutes that—
1. is at least 20 feet high.
  2. has provisions for controlling temperature and humidity.
  3. allows the parachute to be hung vertically for drying and airing.
  4. meets the requirements specified in 1, 2, and 3.
12. No certificated parachute rigger may exercise the privileges of his certificate and type rating unless

he understands the current manufacturer's instructions, and has—

1. performed duties under his certificate for at least 90 days within the preceding 12 months.
  2. packed at least 20 parachutes within the preceding 12 months.
  3. performed duties under his certificate within the preceding 90 days.
  4. packed at least 10 parachutes of each of two types in common use within the preceding 12 months.
13. Federal Aviation Regulations require a certificated parachute rigger to keep a record of the packing, maintenance, or alteration of parachutes performed or supervised by him. Identify those items required to be entered—
- A - Retirement date of parachute.
  - B - Date parachute was manufactured.
  - C - Name and address of parachute owner.
  - D - Type and make of parachute and its serial number.
  - E - Date and place where the particular operation was performed.
1. A, B, C.
  2. B, C, D.
  3. C, D, E.
  4. D, E, A.
14. When requested, a certificated parachute rigger is required to present his certificate to—
1. the owner of a parachute the rigger has packed.
  2. any State or local law enforcement officer.
  3. a person holding a master parachute rigger certificate.
  4. a certificated pilot or flight instructor.
15. Federal Aviation Regulations provide for the issuance of which type ratings for master parachute rigger?
1. Seat, special purpose, back, and lap.
  2. Chest, back, seat, and chair.
  3. Lap, chest, chair, and cargo.
  4. Back, lap, seat, and chest.

16. When repairing a broken stitch in a canopy seam, what action should be taken?
1. Anchor the ends of the broken thread using fabric cement.
  2. Sew back and forth across the ends of the broken stitch.
  3. Reinforce the seam by applying a patch.
  4. Backstitch for at least 1 inch.
17. What is the minimum period of time an applicant for a master parachute rigger certificate shall have served as a parachute rigger?
1. Two years.
  2. Three years.
  3. Four years.
  4. Five years.
18. What determines the service life of a canopy?
1. The total number of repairs.
  2. The number of times it has been packed.
  3. The total number of times it has been used for jumping.
  4. The tensile strength and porosity of the material.
19. What is the purpose of a parachute seal symbol?
1. To identify a certificated parachute rigger.
  2. To identify the parachute manufacturer.
  3. To indicate FAA approval of a parachute assembly.
  4. To identify parachute canopy material.
20. A certificated parachute rigger who applies for an additional type rating must pass which of the following tests?
1. A written test for the type rating sought.
  2. A practical test for the type rating sought.
  3. An oral and practical test for the type rating sought.
  4. A written and practical test for the type rating sought.

# PRACTICE TEST ANSWER SHEET

1

16

1 1..... 2..... 3..... 4.....  
5 1..... 2..... 3..... 4.....  
9 1..... 2..... 3..... 4.....  
13 1..... 2..... 3..... 4.....  
17 1..... 2..... 3..... 4.....



2 1..... 2..... 3..... 4.....  
6 1..... 2..... 3..... 4.....  
10 1..... 2..... 3..... 4.....  
14 1..... 2..... 3..... 4.....  
18 1..... 2..... 3..... 4.....



3 1..... 2..... 3..... 4.....  
7 1..... 2..... 3..... 4.....  
11 1..... 2..... 3..... 4.....  
15 1..... 2..... 3..... 4.....  
19 1..... 2..... 3..... 4.....



4 1..... 2..... 3..... 4.....  
8 1..... 2..... 3..... 4.....  
12 1..... 2..... 3..... 4.....  
16 1..... 2..... 3..... 4.....  
20 1..... 2..... 3..... 4.....

## ANSWERS TO PRACTICE TEST QUESTIONS

<i>Question Number</i>	<i>Answer</i>	<i>Question Number</i>	<i>Answer</i>	<i>Question Number</i>	<i>Answer</i>	<i>Question Number</i>	<i>Answer</i>
1	3	2	1	3	4	4	3
5	4	6	2	7	3	8	1
9	1	10	4	11	3	12	1
13	3	14	2	15	4	16	4
17	2	18	4	19	1	20	2

## ORAL AND PRACTICAL TESTS

### *Taking the Oral and Practical Tests*

Completion of the oral and practical tests is usually the final step in becoming certificated or in adding a rating to a parachute rigger certificate. An oral and a practical test must be taken for each type rating issued during original certification (except in the case of military applicants for senior parachute rigger certificates). When ratings are added to a senior or master parachute rigger certificate, a practical test is required for each rating in addition to the experience requirement.

Oral and practical tests are administered by FAA Flight Standards inspectors or by FAA-designated parachute rigger examiners (DPREs). The scope of the tests is the same, whether given by an inspector or by a DPRE. Arrangements for taking the oral and practical tests should be made in advance of the date on which you desire to take the test.

If an FAA inspector gives the oral and practical tests, the necessary facilities and equipment must be furnished or arranged for by the applicant. The applicant will be expected to furnish: (1) a smooth-top table at least 3 feet wide by 40 feet long, (2) provisions for drying and airing parachutes, (3) manufacturer's instructions, and the tools and equipment used to pack and maintain the types of parachutes for which a rating is sought, and (4) adequate housing facilities to perform the duties of a parachute rigger and to protect the tools and equipment. At least one approved parachute of each type for which a rating is sought must be available for the oral and practical tests.

If a DPRE gives the oral and practical test, he will assure that suitable facilities and equipment are available to conduct the test. Since designated examiners are not

paid by the FAA for their services or the use of their facilities and equipment, they are authorized to charge a fee for administering oral and practical tests.

The names and addresses of the FAA DPRE's in each district can be obtained from the FAA Flight Standards district office that serves the area.

You will be given an application form and instructions for filling it in by the person who administers the tests. He will explain the tasks that will be assigned during the test and will observe all aspects of your performance and grade you accordingly.

The oral test may be administered along with the practical test, or it may be given separately, before or after the practical test. The examiner will not attempt to trick or mislead you in any way with his oral questions or project assignments. Any questions or assignments that you do not understand should be clarified before answering the question or attempting the project.

### ***Evaluating Your Performance***

Your performance will be evaluated by the examiner on the basis of knowledge, accuracy, and proficiency displayed during the test. In evaluating performance the principle characteristic that will be considered is the quality of the end product. Other characteristics that will be considered include:

1. Your approach to the project—did you obtain, use, and correctly interpret information available to perform the task?
2. Your skill in handling tools and use of the proper tool for the assigned task.
3. The care you take in protecting parachute parts from damage during handling.
4. Your proficiency in packing and inspecting parachutes.
5. The manner in which you complete the required forms and records.
6. Your understanding and application of the Federal Aviation Regulations.



## **Oral Test Questions**

Oral test questions cover the same subjects as the written tests and are intended to show how well you can make use of your knowledge. Oral test questions fall generally into three types: (1) questions closely related to assigned projects—to further explore your understanding of the tasks being performed, (2) questions not related to a specific project—to evaluate your ability in areas in which a skill demonstration is not practical, and (3) questions to determine whether additional projects need to be assigned. The following list of questions may be helpful for reviewing the results of your study. Many of them may suggest other areas for additional study.

### **A. PACKING PARACHUTES**

1. What general sequence of operations is followed when packing a parachute?
2. How can the correct procedure for packing a parachute be determined?
3. What sequence of operations is normally followed to remove twists and tangles from a parachute canopy, suspension lines, and harness?
4. In what position would an attached harness be when a parachute is laid out for packing?
5. During the preparation of a parachute for packing, when is the skirt hem of a canopy usually straightened?
6. What determines the width of the canopy folds when packing a parachute?
7. How can the order of stowing lines in the line holders be determined?
8. How is a parachute pack usually sealed after being packed?
9. What is the purpose of temporary locking pins used during parachute packing?
10. What type of safety tie is used when sealing a packed parachute?
11. Name some packing practices which could contribute to a delay in pilot chute ejection.

12. What information is given on the stamped panel of a canopy?
13. What type of knot is used to secure the pilot chute to the canopy apex?
14. What is the reason for disconnecting the apex of the parachute from the packing table tension device during packing?
15. What are the reasons for using a ripcord housing and having it properly attached to the pack and harness?
16. How are the suspension lines attached to the riser links?
17. What are pack-opening elastics or spring bands?
18. What is the purpose of the safety thread and lead seal used to seal a packed parachute?
19. To which pin of a ripcord is the seal attached?
20. What is the maximum permitted ripcord pull force?
21. How does a certificated rigger identify his work or packing?
22. Which pin of a ripcord is number one?
23. What method is effective to temporarily shorten the suspension lines of an unpacked parachute to prevent tangling of the lines?
24. What are the requirements for drying and airing parachutes prior to packing?
25. What types of pilot chutes are in common use?
26. What is the purpose of the suspension line loops in a parachute pack assembly?
27. How are the release pins of a ripcord normally attached to the cable?
28. What action should be taken if a flaw is discovered in a parachute canopy during inspection for packing?
29. After stretching a parachute to its full length on the packing table, what is the next step that should be taken?
30. During the packing operation, why is some canopy material allowed to extend beyond the pack edges?

31. In completing the packing process, what tool is used to insert the protector flaps?
32. What may result if the ripcord handle is improperly positioned?
33. After stowing the suspension lines, where is the skirt of the canopy placed?
34. What is the function of the canopy vent? What do you look for when inspecting it?
35. How can the serviceability of a parachute be determined if the strength of the canopy material is in question?
36. How can the presence of acid in a parachute stain be detected?
37. What is meant by the term "tensile strength" of a material, and how can it be determined?
38. How can the presence of mold or mildew be detected in parachute canopy materials?
39. What is the last step in packing a parachute?
40. What are some of the reasons for condemning a parachute harness?
41. How is the length of a ripcord measured?
42. What are the minimum facilities and equipment a parachute rigger must have available to exercise his privileges?
43. What records of parachute packing, maintenance, and alteration are required to be kept by a parachute rigger?
44. What information is required to be entered on the parachute packing record attached to the parachute?
45. How long must parachute packing, maintenance, and alteration records be kept?
46. What kind of knot is usually used to tie-off harness tacking?
47. How much free line is left between the skirt hem and the line stowage loops or elastics?
48. What is the function of a pilot chute?

49. What requirements must a certificated parachute rigger meet in order to pack the main parachute of a dual parachute pack to be used for intentional jumping?
50. How can the correct method of sealing a parachute pack be determined?

## B. MAINTAINING PARACHUTES

1. Where is the manufacturer's identification data usually located on a parachute canopy? on a harness? on a pack?
2. What is the function of the ripcord housing?
3. How is a parachute usually prepared for an extended storage period?
4. What is the meaning of the term "bias construction" as used to describe a parachute canopy?
5. How are the skirt and vent hems of most parachutes reinforced?
6. What is the usual number of stitches per inch used in making the seams of a parachute canopy?
7. How is the ripcord handle held, or secured to the harness of a back- or seat-type parachute so that it is readily accessible to the wearer, yet relatively safe from accidental release?
8. How are most types of snap fasteners and grommets attached to parachute material?
9. How can the correct procedures for repairing a parachute be determined?
10. How are small holes and snags in a parachute canopy usually repaired?
11. What kind of textile material is used to make a parachute canopy repair?
12. What identifying features are associated with "yarn slippage" in parachute canopy materials?
13. What are the common stitching patterns to attach load-bearing rings and snaps to parachute harnesses?

14. How is uniformity of length of nylon suspension lines assured during manufacture of a parachute, or the replacement of lines?
15. How would a rigger determine the correct number of stitches per inch used for a parachute repair?
16. How would a rigger determine the correct type of seam used for repairing a parachute?
17. What are the characteristics of a properly formed seam?
18. What type of stitch is normally used during the construction and repair of parachutes?
19. What kind of stitch is normally used to secure the suspension lines to the canopy skirt and vent hems?
20. What are the operating principles of the rotary type and oscillating type sewing machines?
21. What factors should be considered when selecting the correct size sewing machine needle to be used for making a repair?
22. What are the characteristics of a sewed lockstitch made by a correctly adjusted sewing machine?
23. What precautions should be observed if load-carrying parachute hardware is refinished or replated?
24. What methods and cleaning products are generally used in cleaning parachute canopy materials?
25. Why is it necessary to stitch the suspension line where it attaches to the riser link?
26. How can a bent or burred ripcord pin be repaired?
27. What is the danger in chrome plating parachute hardware?
28. What agents can be used to clean parachute harnesses?
29. Explain the difference in the construction of a bias-constructed parachute and a straight-constructed one?
30. What process is used on the ends of harness webbing to prevent fraying?

31. What type of knot may be used to secure harness tacking if no particular knot is specified?
32. What can result if the ripcord handle pocket is improperly positioned?
33. Why is an acid stain more serious than any other type of stain on a parachute?
34. What should be done with a parachute canopy that has a large acid-stained area?
35. How should a parachute be dried after it has been rinsed or soaked in water?
36. What action is necessary when a parachute has been stained with perspiration?
37. What chemicals can be used to prevent a parachute from mildewing?
38. Why should the elasticity of a seam be greater than that of the material it joins?
39. Who is privileged to perform major repairs to a parachute assembly?
40. What guide for details could be followed in performing a minor repair to a parachute?
41. What action should be taken first when laying out a parachute canopy repair patch?
42. How should a tear in a canopy be prepared for patching?
43. What is the minimum distance that the raw edges of a canopy patch must be turned under?
44. What procedures must be followed when repairing a parachute?
45. Who may alter the main parachute of a dual parachute pack?
46. What is likely to occur while operating a sewing machine if the bobbin is threaded incorrectly?
47. What sewing machine malfunction can cause staggered stitches?
48. What procedure should be followed when repairing broken stitches in a canopy seam?
49. What determines the service life of a nylon canopy?

50. What is the purpose for using zigzag stitching to complete the attachment of suspension lines to the riser links?
51. How can sunlight damage to white nylon fabric be identified?
52. When replacing a damaged ripcord with a serviceable one, what requirements must be met?
53. When replacing a pack grommet that has torn out of its fastening, what should be done to keep the locking pin from binding in the cone?
54. What is the reason for matching the weave of the patch material with that of the canopy being repaired?
55. What precautions should be observed when replacing a broken or missing eye on a parachute container?
56. Describe the appearance of the material defect known as a "warp float."
57. What effect would a bent grommet have on the operation of the pack-opening mechanism?
58. What action should be taken if "yarn slippage" is detected in a parachute canopy during the inspection?
59. What thread size should be used to sew canopy radial seams when making a repair?
60. How is the needle thread and the bobbin thread tension on a sewing machine usually controlled?

### ***Practical Test Projects***

The practical test consists of assigned work projects to test your mechanical skill and ability to organize work, select and follow correct procedures, apply appropriate techniques, and determine an acceptable level of workmanship. The person administering the test will select projects that utilize as much as possible the equipment and procedures that are familiar to you.

If a project must be performed in accordance with a manufacturer's instructions or other data, the examiner will expect you to consult the instructions or data. Failure to do so may result in your failing the practical test.

A list of the projects you can expect to be assigned during the practical test is shown below. You will be required to perform all of the tasks involved in packing parachutes, and may be assigned all or only part of the projects listed under Maintaining Parachutes. Since master parachute riggers are permitted to make major repairs and alterations, and to supervise other persons performing these operations, master rigger tests will be more extensive than the tests given a senior parachute rigger applicant.

## A. PACKING PARACHUTES

### (1) *Pack a parachute.*

- (a) Identify and select tools, equipment, and technical information. You must select the correct tools, equipment, and manuals.
- (b) Open the pack. You must take precautions to avoid damage to the parachute; check the ripcord pull force.
- (c) Lay out the parachute. You must lay out the parachute as prescribed in the packing instructions, check the canopy for being right side out, check suspension lines for continuity, and remove tangles (if any).
- (d) Inspect the parachute. You must carefully check for conformity to the manufacturer's description, completeness of assembly, operational adequacy, markings, damage, deterioration, and other defects.
- (e) Fold and stow the parachute. You must pleat and fold the canopy gores, sign inside packing record, accordian fold the canopy into the pack, and fold and pack pilot chute.
- (f) Close, finish, and seal the pack. You must close the pack flaps in the correct sequence, insert the pack closing device, finish and smooth the pack, seal the pack, fasten the pack opening bands and protector flaps, and fill the parachute records.



## B. MAINTAINING PARACHUTES

### *Senior Rigger and Master Rigger Applicants*

- (1) *Restitch canopy seams.* You must select the correct sewing machine; use straight lockstitch or zigzag stitch, depending upon the area being restitched; use proper size, texture, and color thread; restitch following original construction, overstitch as required; and check suspension line freedom if restitching a radial seam.
- (2) *Darn a small snag or tear.* You must select proper size, texture, and color thread; use tiny stitches at right-angles to the damage and extend the darning beyond the area. Canopy material should not be puckered.
- (3) *Patch a canopy section.* You must select correct machine, fabric, and thread; match filler, warp, and ripstop boxes, as applicable; use correct stitching, overlap, edge distance, and overstitching; trim out damaged area; check suspension line freedom, if stitching on a radial seam.
- (4) *Repair a torn radial seam.* You must select correct machine, thread fabric, or tape; use correct stitching, overlap, edge distance, and overstitching; trim out damaged area; check suspension line freedom.
- (5) *Replace pocket bands or V-tabs.* You must select correct machine, thread, webbing; correctly position webbing; use correct stitching, stitch spacing, and overstitching.
- (6) *Restitch or replace pack opening spring bands.* You must use correct thread; hand tack the band in place with the required number and placement of stitches; tie-off thread properly.
- (7) *Install snap fasteners on a parachute pack.* You must select snaps of the correct type; punch or repair hole as applicable; check completed installation for security and operation.
- (8) *Install grommets.* You must select grommet and washer of the correct type and size; punch or re-

pair hole as applicable; check grommet for security.

- (9) *Install locking cones on a parachute pack.* You must select proper size and type of thread and cone of the same size and type as used on the pack; properly align, position, and stitch cone in place; tie off thread.
- (10) *Install a slide fastener.* You must select proper size and type of thread and slide fasteners; use correct stitching; check completed installation for operation.
- (11) *Install hook eyes on a parachute pack.* You must select correct eye and thread; position eye and sew into place; tie off thread.
- (12) *Operate a standard sewing machine.* You must thread the machine and adjust it to produce an acceptable lockstitch.

### ***Master Rigger Applicants Only***

- (13) *Repair an upper or lower lateral band.* You must select correct size and type tape and thread; use correct stitching, underfold, edge distance, spacing, and over stitching; splice reinforcing tape as required.
- (14) *Replace a canopy gore section or panel.* You must select correct fabric and thread; match filler, warp, and ripstop boxes, as applicable; use correct stitching, overlap, edge distance, and over stitching; trim out damaged area; check suspension line freedom.
- (15) *Replace a suspension line.* You must select correct thread and suspension line of the type used on the canopy; adjust length of replacement line to maintain canopy balance; attach line to canopy and riser link using correct stitching; check line continuity.

### **SCORING ORAL AND PRACTICAL TESTS**

Oral and practical tests are graded as soon as they are completed. The tests are graded using a pass/fail con-

cept, rather than a numerical score. If any part of the test is failed, the person administering the tests will issue a Notice of Disapproval of the application. He will also return your Airman Written Test Report, or Airman Certificate, whichever is applicable.

If you fail a test you may apply for a retest as prescribed in FAR Part 65.19. You have the option of returning to the same FAA District Office or DPRE, or applying to any other FAA District Office or DPRE for the retest.

When all parts of the tests have been passed, the FAA office or DPRE will issue a temporary parachute riggers certificate. The following excerpts from FAR Part 65 pertain to temporary certificates. "A certificate and ratings effective for a period of not more than 90 days may be issued to a qualified applicant, pending review of his application and supplementary documents and the issue of the certificate and ratings for which he applied."

## **PERMANENT CERTIFICATE ISSUANCE**

Permanent certificates are prepared and issued by the Airmen Certification Branch of the FAA and are mailed to the address shown on the application form. It usually takes about 8 weeks to process the application and issue the permanent certificate. In the meantime, you may exercise the privileges of a certificated parachute rigger using your temporary certificate.

## **PARACHUTE RIGGER SEAL SYMBOLS**

When a certificate is first issued to a parachute rigger, the FAA assigns an identifying symbol for the rigger's exclusive use in sealing parachute packs. Each rigger must obtain his own seal press and a seal with his assigned symbol. Seals and seal presses are not available from the FAA. They can be purchased from the manufacturers or suppliers of parachutes and parachute equipment.

After a parachute is packed, a low-tensile-strength safety thread is usually wrapped and knotted about the release device in a manner specified by the parachute

manufacturer, a lead seal is affixed to the thread and secured by impressing the rigger's seal symbol into it. Any withdrawal of the release pins (or other release mechanism) will break the thread. As long as the safety thread and seal remain intact, it is an indication to the user that the pack has not been opened since being inspected and packed by a certificated rigger.

## RECOMMENDED STUDY MATERIALS

The publications listed in this section will be helpful as you prepare for the Parachute Rigger Written Test. However, they do not provide the total technical information required for certification. It is the responsibility of each applicant to obtain the study materials appropriate to his own needs.

A variety of text and reference material is available from commercial publishers. Most public and institutional libraries maintain technical reference sections and can often recommend specific text books and authors. Manufacturers' instructional manuals are also a good source of technical material.

### *Federal Aviation Regulations*

The following regulations should be useful to a person studying for the tests. A knowledge of the rules is often very helpful and sometimes necessary during the performance of parachute rigger duties.

Part 1—Definitions and Abbreviations.

Part 21—Certification Procedures for Products and Parts.

Part 37—Technical Standard Order Authorizations.

Part 65—Certification: Airmen Other Than Flight Crewmembers.

Part 91—General Operating and Flight Rules.

Part 105—Parachute Jumping.

Part 149—Parachute Lofts.

## ***FAA Advisory Circulars***

The FAA issues advisory circulars to inform the aviation public in a systematic way of nonregulatory material of interest. Advisory circulars are issued in a numbered-subject system corresponding to the numbering system used for Federal Aviation Regulations.

The advisory circulars of greatest interest to parachute rigger applicants are:

- |                              |   |
|------------------------------|---|
| AC 00-2<br>(latest revision) | Advisory Circular Checklist and Status of Federal Aviation Regulations. Provides a list of current FAA advisory circulars and Federal Aviation Regulations and how to order them. |
| AC 20-36C                    | Index of Materials, Parts, and Appliances Certified under the Technical Standard Order System.  |
| AC 105-2                     | Sport Parachute Jumping.  |
| AC 183-31B                   | FAA Designated Parachute Rigger Examiner Directory.   |

Free advisory circulars may be obtained by writing to: Department of Transportation, Publications Section, TAD 443.1, Washington, D.C. 20590.

## **APPENDIX**

### **REGIONAL OFFICES**

#### **EASTERN REGION**

Federal Building

John F. Kennedy International Airport

Jamaica, New York 11430

Tel. 212-995-3333

Area: Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania, Virginia, West Virginia

#### **NEW ENGLAND REGION**

12 New England Executive Park

Burlington, Massachusetts 01803

Tel. 617-467-7245

Area: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont

#### **SOUTHERN REGION**

3400 Whipple St.

East Point, Georgia 30344

Tel. 404-526-7222

Mail: P.O. Box 20636

Atlanta, Georgia 30320

Area: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee

#### **ALASKA REGION**

Hill Building—632 Sixth Avenue

Anchorage, Alaska 99501

Tel. 907-272-5561

#### **CENTRAL REGION**

601 East 12th Street

Kansas City, Missouri 64106

Tel. 816-374-5626

Area: Iowa, Kansas, Missouri, Nebraska

## **NORTHWEST REGION**

FAA Building, King Co. Int'l. Arpt.  
Seattle, Washington 98108  
Tel. 206-583-4100

Area: Idaho, Oregon, Washington

## **SOUTHWEST REGION**

4400 Blue Mound Rd.  
P.O. Box 1689  
Fort Worth, Texas 76101  
Tel. 817-624-4911

Area: Arkansas, Louisiana, New Mexico, Oklahoma,  
Texas

## **GREAT LAKES REGION**

2300 E. Devon Avenue  
Des Plaines, Illinois 60018  
Tel. 312-694-4500

Area: Illinois, Indiana, Minnesota, Michigan, Ohio,  
Wisconsin

## **ROCKY MOUNTAIN REGION**

10455 E. 25th Avenue  
Aurora, Colorado 80010  
Tel. 303-837-4992  
Mail: Park Hill Station  
P.O. Box 7213  
Denver, Colorado 80207

Area: Colorado, Montana, North Dakota, South Dakota,  
Utah, Wyoming

## **WESTERN REGION**

15999 Aviation Blvd.  
Hawthorne, California 90261  
Tel. 213-536-6207  
Mail: P.O. Box 92007  
Worldway Postal Center  
Los Angeles, California 90009

Area: Arizona, California, Nevada

## **PACIFIC-ASIA REGION**

1833 Kalakaua Avenue  
P.O. Box 4009  
Honolulu, Hawaii 96813  
Tel. 808-955-0401

## **EUROPE, AFRICA, & MIDDLE EAST REGION**

FAA, 1 Place Madou,  
1030 Brussels, Belgium  
Tel. 13.38.30, Ext. 300 or 301

### **U.S. Mailing Address:**

American Embassy—FAA  
APO New York 09667



## GENERAL AVIATION DISTRICT OFFICES

### ALABAMA

Birmingham 35206: Mun. Arpt., 6500 48rd Ave., North;  
Tel. 205-592-6371

### ALASKA

Anchorage 99501: 13th and Orca Sts.; Tel. 907-272-1324/  
3124/5561

### ARKANSAS

Little Rock 72202: Rm. 201, FAA & Weather Service  
Bldg., Adams Fld.; Tel. 501-372-3437/8

### CALIFORNIA

Fresno 93727: Fresno Air Terminal, 2401 No. Ashley;  
Tel. 209-487-5306

Los Angeles: Suite 3, Mun. Arpt., 3200 Airport Ave.,  
Santa Monica, Ca. 90405; Tel. 213-870-9119/391-6701

Ontario 91761: Ontario Int'l Arpt.; Tel. 714-984-2411

Sacramento 95822: Executive Arpt.; Tel. 916-449-3169

San Jose 95110: 1387 Arpt. Blvd.; Tel. 408-275-7681

### COLORADO

Denver: FAA Bldg., Jefferson Co. Arpt., Broomfield, Co.  
80201; Tel. 303-466-7326

### FLORIDA

Jacksonville 32211: FAA Bldg., Craig Fld., P.O. Box  
8665; Tel. 904-725-3977

Miami: Bldg 121, Opa Locka Arpt., P.O. Box 365, Opa  
Locka, Fl. 38054; Tel. 305-681-7431

St. Petersburg 33732: St. Petersburg-Clearwater Arpt.;  
Tel. 813-531-1434

### GEORGIA

Atlanta 30336: FAA Bldg., Rm. 200, Fulton Co. Arpt.,  
3999 Gordon Rd., SW.; Tel. 404-691-2323

### IDAHO

Boise 83705: 3118 Arpt. Way; Tel. 208-342-2711 x 238

## ILLINOIS

Chicago: DuPage Co. Arpt., P.O. Box H, West Chicago, 60185; Tel. 312-584-4490/1/2

Springfield 67205: Capital Arpt., New Terminal; Tel. 217-525-4238

## INDIANA

Indianapolis 46241: FAA Bldg. #1, Mun. Arpt., P.O. Box 41525; Tel. 317-247-2401

South Bend 46028: 1843 Commerce Dr.; Tel. 219-232-5848

## IOWA

Des Moines 50321: Mun. Arpt., 204 Adm. Bldg.; Tel. 515-284-4094

## KANSAS

Kansas City 66115: Rm. 100, Adm. Bldg., Fairfax Arpt.; Tel. 913-281-8491/2

Wichita 67209: Flight Standards Bldg., Mid-Continent Arpt.; Tel. 316-943-3244

## KENTUCKY

Louisville 40205: Adm. Bldg., Bowman Fld.; Tel. 502-582-6116

## LOUISIANA

Lafayette 70501: Lafayette Arpt.; Tel. 504-234-2321

New Orleans 70126: Rm. 227, Adm. Bldg., New Orleans Lakefront Arpt.; Tel. 504-241-2506

Shreveport 71107: Rm. 137, Terminal Bldg., Downtown Arpt.; Tel. 818-422-8370/9

## MAINE

Portland 04102: General Aviation Terminal, Portland Int'l. Jetport; Tel. 207-774-4484

## MARYLAND

Baltimore 21240: Baltimore-Washington Int'l. Arpt., Tel. 301-761-2610

## MASSACHUSETTS

Norwood 02062: Mun. Arpt.; Tel. 617-762-243/2675

Westfield 01085: 1st Floor Terminal Bldg., Barnes-Westfield Mun. Arpt., P.O. Box 544; Tel. 413-568-8691

## **MICHIGAN**

Grand Rapids 49508: Kent Co. Arpt., 5500 44th St., SE;  
Tel. 616-456-2427

## **MINNESOTA**

Minneapolis 55450: Wold-Chamberlain Arpt., Rm. 201,  
6201 34th Ave. So.; Tel. 612-725-3341

## **MISSISSIPPI**

Jackson 39208: FAA Bldg., Mun. Arpt., P.O. Box 6723,  
Pearl Station; Tel. 601-939-5231

## **MONTANA**

Billings 59101: Rm. 216, Adm. Bldg., Billings-Logan Fld.;  
Tel. 406-245-6179

Helena 59601: Rm. 3, FAA Bldg., Helena Arpt., P.O. Box  
1167; Tel. 406-442-4230

## **NEBRASKA**

Lincoln 68524: General Aviation Bldg., Lincoln Mun.  
Arpt.; Tel. 402-475-3553

## **NEVADA**

Las Vegas 89119: 5700 C So. Haven; Tel. 702-736-6358

Reno 89502: 2601 East Plumb Lane; Tel. 702-784-5321

## **NEW JERSEY**

Teterboro 07608: Teterboro Air Terminal, 510 Industrial  
Ave.; Tel. 201-288-1745

## **NEW MEXICO**

Albuquerque 87119: Albuquerque Int'l. Arpt., P.O. Box  
9045; Tel. 505-247-0156

## **NEW YORK**

Albany 12211: Albany Co. Arpt.; Tel. 518-869-8482

Farmingdale 11735: Bldg. 53, Republic Arpt.; Tel. 516-  
691-3100

## **NORTH CAROLINA**

Charlotte 28208: FAA Bldg., Mun. Arpt.; Tel. 704-392-  
8214

Raleigh 27611: Rm. 324, Terminal Bldg., Raleigh-Durham  
Arpt., P.O. Box 28307; Tel. 919-755-4240

## **NORTH DAKOTA**

Fargo 58102: Rm. 216, Adm. Bldg., Hector Fld., P.O. Box 5469; Tel. 701-232-8949

## **OHIO**

Cincinnati 45226: Lunken Arpt. Exec. Bldg., 4242 Airport Rd.; Tel. 513-684-2183

Columbus 43219: 424 Lane Aviation Bldg., Port Columbus Arpt., 4393 E. 17th Ave.; Tel. 614-469-7476/7

## **OKLAHOMA**

Oklahoma City: FAA Bldg., Wiley Post Arpt., Bethany, Ok. 73008; Tel. 405-789-5220/1/2

Tulsa 74115: Gen. Avia. Terminal, Rm. 110, Tulsa Int'l. Airport; Tel. 918-835-7619

## **OREGON**

Eugene 97402: Mahlon Sweet Arpt., Rt. 1, Box 717; Tel. 503-688-9721

Portland 97218: 5410 NE. Marine Dr.; Tel. 503-288-5846

## **PENNSYLVANIA**

Allentown 18103: Allentown-Bethlehem-Easton Arpt.; Tel. 215-264-2888

Harrisburg: Rm. 201, Adm. Bldg., Capital City Arpt., New Cumberland, Pa. 17070; Tel. 717-782-4528

Philadelphia 19144: No. Philadelphia Arpt.; Tel. 215-673-0250

Pittsburgh: Rm. 213, Allegheny Co. Arpt., West Mifflin, Pa. 15122; Tel. 412-461-7800

## **SOUTH CAROLINA**

Columbia: Metropolitan Arpt., Box 200, West Columbia, S.C. 29169; Tel. 803-794-9042

## **SOUTH DAKOTA**

Rapid City 57701: Mun. Arpt., R.F.D. #2, Box 683B; Tel. 605-843-2403

## **TENNESSEE**

Memphis 38130: 2488 Winchester, P.O. Box 80050; Tel. 901-398-2353

Nashville 37217: 303 Doyle Terminal, Metropolitan Arpt.; Tel. 615-749-5661

## TEXAS

Corpus Christi 78404: Bledsoe Hangar No. 3, Int'l. Arpt;  
Tel. 512-884-9331/2

Dallas 75232: Redbird Arpt.; Tel. 214-339-7164

El Paso 79925: Rm. 202, FAA Bldg., 6795 Convair Rd.;  
Tel. 915-778-6389

Fort Worth 76106: Rm. 201, Adm. Bldg., Meacham Fld.;  
Tel. 817-624-1184/5

Houston 77017: 8345 Telephone Rd.; Tel. 713-643-6504

Lubbock 79407: P.O. Box 1942, Executive Air Terminal,  
Rt. #3; Tel. 806-762-0335

Midland 79701: Midland-Odessa Regional Air Terminal;  
Tel. 915-563-0802

San Antonio 78216: 1115 Paul Wilkins Rd., Rm. 201; Tel.  
512-824-9535

## UTAH

Salt Lake City 84116: 116 North 2400 West, Rm. 103;  
Tel. 801-524-4247

## VIRGINIA

Richmond: Byrd Field, Sandston, Va. 23150; Tel. 804-  
222-7494

## WASHINGTON

Spokane 99206: 5629 E. Rutter Avenue; Tel. 509-456-4618

## WEST VIRGINIA

Charleston 25311: Kanawha Co. Arpt.; Tel. 804-343-5689

## WISCONSIN

Milwaukee 53207: General Mitchell Field; Tel. 414-747-  
5531

## WYOMING

Casper 82601: 1187 Fuller Street, Casper Air Terminal;  
Tel. 307-234-8959

## **FLIGHT STANDARDS DISTRICT OFFICES (FSDO)**

**(Combined Air Carrier and General  
Aviation District Offices)**

### **ALASKA**

Fairbanks 99701: 3788 University Ave.; Tel. 907-452-1276

Juneau 99801: Terminal Bldg., Municipal Intl. Arpt.; Tel.  
907-586-3700/3755

### **ARIZONA**

Phoenix: 7616 E. Butherns Drive, Scottsdale, Ariz. 85260;  
Tel. 602-261-4763

### **CALIFORNIA**

Long Beach 90806: Municipal Arpt., 2815 E. Spring St.;  
Tel. 213-426-7134

Oakland 94614: 9636 Earhart Rd., P.O. Box 2397 Airport  
Station; Tel. 415-569-8879

San Diego 92123: 3750 John J. Montgomery Drive; Tel.  
714-293-5280

Van Nuys 91406: 7120 Havenhurst Ave.; Tel. 213-785-  
8624

### **DISTRICT OF COLUMBIA**

Washington 20001: West Bldg., Room 152, Washington  
National Arpt.; Tel. 202-628-1555

### **HAWAII**

Honolulu 96819: P.O. Box 9728, Air Service Corporation  
Bldg., 218 Lagoon Drive; Tel. 808-847-0615

### **MICHIGAN**

Detroit: Willow Run Arpt., Ypsilanti, Mich. 48197; Tel.  
313-485-2550

### **MISSOURI**

St. Louis: 9275 Genaire Drive, Berkeley, Mo. 63134; Tel.  
314-731-4190

## **NEW YORK**

Rochester 14624: Rochester-Monroe County Arpt.; Tel.  
716-235-3438

## **OHIO**

Cleveland 44185: 2nd Floor, Sundorph Hangar, Cleveland-  
Hopkins Intl. Arpt.; Tel. 216-267-0220

## **PUERTO RICO**

San Juan: Lolza Expressway; RFD No. 1 P.O. Box 29A,  
Lolza Station, Santruce 00914, Tel. 809-791-0874/5

## **WASHINGTON**

Seattle 98108: Room 104, FAA Bldg., King Co. Intl. Arpt.,  
Tel. 206-767-2747/2570

## **INTERNATIONAL FIELD OFFICES**

### **ALASKA**

Anchorage 99501: Rm. 454, Hill Bldg., 632 Sixth Ave.;  
Tel. 907-277-0593

### **NEW YORK**

Jamaica 11430: Federal Bldg., Rm. 102, JFK Int'l. Arpt.;  
Tel. 212-995-3716

Valley Stream 11581: 181 So. Franklin Ave.; Tel. 212-  
995-8529

### **BUENOS AIRES**

U.S. Embassy, Sarriento 663, Buenos Aires, Argentina

### **LIMA**

U.S. Embassy, Comer Avenidas Wilson & Espana, Lima,  
Peru

### **RIO DE JANEIRO**

U.S. Consulate General, Av. Pres. Wilson, 147, Rio De  
Janeiro, GB, Brazil

### **SOUTHEAST ASIA**

Rte. 008, Finegayan, Guam 96912

### **EAST ASIA**

c/o American Embassy, Tokyo, APO San Francisco 96503



# FAA REGIONAL BOUNDARIES

Including Locations of Regional Headquarters & Centers



44