For Sale AC 65-5

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PARACHUTE RIGGER
CERTIFICATION GUIDE

Senior Parachute Rigger
Master Parachute Rigger

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

PREFACE

The Parachute Rigger Certification Guide was prepared by the Flight Standards Service of the Federal Aviation Administration. It is intended to provide information on how to apply for a parachute rigger certificate or rating, and to assist the applicant in preparing for the written, oral, and practical tests.

The guide is not intended to be used as a technical manual for instructional or reference purposes in the construction, packing, maintenance, alteration, or use of parachutes. The manufacturers of parachutes and various publishers of technical textbooks are the best sources of that information.

CONTENTS

PARACHUTE RIGGER CERTIFICATES AND RATINGS

The requirements for parachute rigger certificates and ratings, and the privileges and performance standards for parachute riggers are prescribed in Subpart F of Part 65 of the Federal Aviation Regulations*—*Certification: Airmen Other Than Flight Crewmembers.*

Privileges

Part 65 provides for the issuance of two parachute rigger certificates: senior parachute rigger and master parachute rigger. A certificated *senior parachute rigger* may pack or maintain (except for major repair) 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. He may also instruct or supervise other persons in the proper methods and procedures of constructing, packing, maintaining, altering, and using the type of parachute for which he is rated.

Part 65 also provides for four type ratings: seat, back, chest, and lap. Every parachute rigger must meet the requirements for at least one rating to be issued a certificate, and parachute riggers may exercise their privileges only with parachutes for which they are rated.

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

*Regulations are amended from time to time and applicants should check with the local FAA office to ascertain the currency of referenced regulations.

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 a corresponding certificate."

Experience Requirements

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

Applicants for a master parachute rigger certificate must have had at least five years of experience as a parachute rigger and have satisfactorily packed at least 100 parachutes of each of two types in common use.

When applying for certification the following information may be presented as evidence of packing experience:

(a) name of the person who did the packing.
(b) type and number of parachutes packed.
(c) packing dates.
(d) statement that the parachutes were packed in accordance with the manufacturer's instructions.
(e) statement that the parachutes were packed under the supervision of an appropriately

rated certificated master parachute rigger (or the appropriate military equivalent), including the name, certificate number, and ratings of the master rigger or military equivalent.

This information can easily be kept in a record book, of the logbook type, available from most aviation and parachute equipment suppliers.

Alternatively, applicants may present a letter from a master rigger certifying that the applicant has packed at least the required number of parachutes of a given type under his supervision and according to the parachute manufacturer's instruction.

Examinations

Senior parachute rigger applicants are required to take an appropriate written test. They are also required to take an oral and practical test, which may be taken after the applicant has passed the written test. (FAR 65.115)

Master parachute rigger applicants are not required to take a written test. They may take the oral and practical test upon showing they meet the other requirements. (FAR 65.119)

Military and former military rigger applicants who meet the regulatory requirements may take a special written test. They are not required to take an oral and practical test. Evidence to establish their eligibility under this special certification rule may be submitted in the form of letters, official records, or other documents. (FAR 65.117)

Where to apply

Parachute rigger applicants should contact the nearest local Flight Standards District Office. Addresses of the district offices are listed in the appendix.

When applying in person, or when appearing for examination, applicants should bring their records and other evidence to substantiate their experience so that an FAA inspector may review them to assure that applicants meet the general and experience requirements of FAR Part 65.

THE WRITTEN TEST

The written test can be taken at an FAA Flight Standards District Office or at some FAA Flight Service Stations. If conditions warrant, and prior arrangements are made, some Flight Standards offices give written tests at other locations or during other-than-normal working hours.

Applicants are expected to begin the written test early enough to complete it before office closing time. Two hours are allowed for the senior parachute rigger written test, and one hour for the special test for military and former military riggers.

The office administering the written test will issue a test booklet, a blank answer sheet, and all the materials necessary to take the test.

The written tests are made up of multiple-choice questions about the construction, packing, maintenance, and use of parachutes, and the Federal Aviation Regulations related to parachute riggers. Each question presents a problem and lists four possible answers. Only one of the answers will solve the problem completely and correctly. The tests do not contain any questions designed to trick or mislead.

After completion of the test, the answer sheet will be forwarded by the FAA office to a central location for grading. (The Senior Parachute Rigger Military Competence written test will be graded by the Flight Standards District Office conducting the test.) The minimum passing grade on FAA tests is 70 per cent.

Written test grades are reported directly to applicants by mail. The address used for mailing is that shown by the applicant on his answer sheet. Five working days (exclusive of time enroute in the mail) are normally required for answer sheets to be processed and grades reported.

Grades are reported on an FAA form entitled "Report of Airmen Written Examination." It is the only acceptable evidence of having passed the required written test and must be presented when

applying for a certificate. If it is lost or destroyed, a duplicate can be obtained by sending $1.00 (money order or check payable to FAA) to Federal Aviation Administration, Airmen Certification Branch, AC–260, P.O. Box 25082, Oklahoma City, Oklahoma 73125, and stating the title of the test and the place and approximate date it was taken.

An applicant who fails a parachute rigger test must wait 30 days to retake it, or present a statement from a certificated and appropriately rated master parachute rigger (or a person holding an appropriate military rating) certifying that he has given the applicant at least 5 hours of additional instruction in the subjects failed and now considers the applicant ready for retesting.

Written Test Subjects

The subjects covered by the senior parachute rigger written tests are outlined below. The special tests administered to military or former military riggers deal only with the first two categories, "Certification" and "Privileges, Limitations, and Operating Rules," but other applicants should be prepared to answer questions in all subject areas listed.

A. CERTIFICATION
   1. Issuance
   2. Type ratings
   3. Test requirements
   4. Military riggers and former military riggers

B. PRIVILEGES, LIMITATIONS, AND OPERATING RULES
   1. Certificate privileges
   2. Facilities and equipment
   3. Performance standards
   4. Records
   5. Pack sealing
   6. Parachute repair
   7. Parachute alteration

C. PACKING
   1. Requirements
   2. Preparation
   3. Inspection
   4. Folding and stowing
   5. Closing, finishing, and sealing

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D. OPERATION, USE, AND CARE
   1. Function of parts and assemblies
   2. Operating forces
   3. Harness adjustment
   4. Handling and storage
   5. Airing and drying
   6. Safety practices

E. DESIGN AND CONSTRUCTION
   1. Pilot chute
   2. Main canopy
   3. Pack assembly
   4. Release devices
   5. Suspension lines
   6. Harness
   7. Parachute hardware

F. REPAIR
   1. Repair standards
   2. Canopy repair
   3. Harness repair
   4. Miscellaneous repairs
   5. Sewing and stitching
   6. Sewing machines
   7. Parachute hardware
   8. Cleaning

Review Questions

The following list of questions may be helpful for reviewing the results of your study. Many of them may suggest other questions and areas for additional study. The multiple-choice questions actually used in the written tests are more specific but cover the same subject areas.

A. CERTIFICATION

1. What part of the Federal Aviation Regulations prescribes the requirements for issuing parachute rigger certificates?
2. What are the experience requirements for issuance of senior and master parachute rigger certificates?
3. What are the skill requirements for issuance of senior and master parachute rigger certificates?
4. What is the minimum age for issuance of a parachute rigger certificate?

5. What is the duration of a parachute rigger certificate?
6. What are the requirements for reporting change of address of a certificated parachute rigger?
7. To whom must a parachute rigger present his certificate for inspection, if requested?
8. What type ratings are available for certificated parachute riggers?
9. What are the requirements for issuance of a type rating?
10. What are the test requirements for issuance of a senior or master parachute rigger certificate?
11. How long must an applicant wait for a retest if he has failed a test?
12. What are the requirements for issuance of an additional type rating to a certificated parachute rigger?
13. What are the requirements for issuance of a parachute rigger certificate to eligible military or former military riggers?

B. PRIVILEGES, LIMITATIONS, AND OPERATING RULES

1. Who is responsible for determining that parachutes available for emergency use aboard civil aircraft are of an approved type and have been packed within the required time period?
2. What are the privileges of a certificated senior parachute rigger?
3. What are the privileges of a certificated master parachute rigger?
4. What are the minimum facilities and equipment a parachute rigger must have available to exercise his privileges?
5. What responsibility does a parachute rigger have in connection with a parachute presented to him for packing that is not safe for emergency use?
6. What responsibility does a parachute rigger have regarding the airing and drying of a parachute?
7. From what source may instructions for packing and maintaining a parachute be obtained?

8. What are the recent experience requirements for exercising the privileges of a parachute rigger certificate?
9. What records of parachute packing, maintenance, and alteration are required to be kept by a parachute rigger?
10. What information is required to be entered on the parachute packing record attached to each parachute?
11. How long must parachute packing, maintenance, and alteration records be kept?
12. How can a parachute rigger determine the correct method of sealing a parachute after packing?
13. Who may repair a parachute?
14. Who may alter a parachute?
15. Who may pack the auxiliary and main parachutes of a dual parachute pack to be used for intentional jumping?
16. Who may alter the main pack of a dual parachute pack to be used for intentional jumping?
17. 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?

C. PACKING

1. What are the required packing periods for parachutes that are to be made available for emergency use aboard civil aircraft?
2. What general sequence of operations is followed when packing a parachute?
3. How can the correct procedure for packing a parachute be determined?
4. What sequence of operations is normally followed to remove twists and tangles from a parachute canopy, suspension lines, and harness?
5. In what position should an attached harness be when a parachute is laid out for packing?
6. When is the skirt hem of a canopy usually straightened during the preparation of a parachute for packing?
7. What identification information is required to be marked on parachutes manufactured according to the applicable Technical Standard Order?

8. Where is the manufacturer's identification data usually located on a parachute canopy?
9. How can the serviceability of a parachute be determined if the strength of the canopy material is in question?
10. What is meant by the term "tensile strength" of a material, and how can it be determined?
11. How can the presence of mold or mildew in parachute canopy materials be detected?
12. How can the presence of acid in a parachute stain be detected?
13. What determines the width of the canopy folds when packing a parachute?
14. How can the order of stowing lines in the line holders be determined?
15. How is a parachute pack usually sealed after being packed?
16. What is the purpose of temporary locking pins used during parachute packing?

D. OPERATION AND USE

1. What is the purpose and function of the ripcord housing?
2. What is the function of the canopy vent and vent collar?
3. How do pack opening elastics or spring bands function during parachute opening?
4. What is the function of the pilot chute?
5. What forces act upon a parachute canopy to cause it to open and inflate properly?
6. When are the forces acting upon a parachute the greatest?
7. What factors affect the rate of descent of a parachute?
8. What body position is preferable for a parachutist when the ripcord is pulled?
9. What can a parachutist do during descent to reduce oscillation?
10. How can a parachute be manipulated during descent so that it will slip?
11. What body position is preferable for a parachutist immediately prior to landing?
12. What procedure can a parachutist follow in preparation for a water landing to reduce the

possibility of becoming entangled in the parachute?

13. What general sequence of operations should be followed in fitting a parachute harness to a wearer?
14. What are the usual points of adjustment on a parachute harness?
15. How is a parachute usually prepared for a storage period of six months or more?
16. What method is effective to temporarily shorten the suspension lines of an unpacked parachute to facilitate handling and prevent further tangling of the lines?
17. What are the requirements for drying and airing parachutes prior to packing?

E. DESIGN AND CONSTRUCTION

1. What are some of the common methods of causing positive and quick-acting deployment of the pilot chute?
2. What types of pilot chutes are in common use and how does each function?
3. How is the pilot chute normally attached to the main canopy?
4. What are the characteristics of construction of flat and conical types of parachute canopies?
5. What is the meaning of the term "projected diameter" as used in describing a parachute canopy?
6. How are suspension lines and the canopy normally assembled or attached to each other?
7. What is the meaning of the term "porosity" as used in conjunction with a parachute?
8. What is the meaning of the term "bias construction" as used to describe a parachute?
9. How are the skirt and vent hems of most parachutes reinforced?
10. What is the usual number of stitches per inch used in making the seams of a parachute canopy?
11. What is the purpose of the suspension line loops in a parachute pack assembly?
12. How is a quick-attachable chest-pack assembly attached to the harness?

13. What is the maximum pull allowed for the ripcord or other pack opening device?
14. Of what materials are parachute ripcords usually constructed?
15. How does a lock chain type of pack opening device operate?
16. 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?
17. How are the release pins of a ripcord normally attached to the cable?
18. What are the characteristics of construction of the suspension lines of most parachutes?
19. How are suspension lines normally attached to the connector links?
20. What group of suspension lines of a 28-foot flat type parachute are attached to the inner connector links at the risers?
21. What is the purpose of the lift web assembly used with a quick-attachable type of parachute?
22. What is the purpose of using a quick-release fitting to attach the canopy of some parachutes to the harness?
23. How are the strap or webbing ends of adjustable harnesses usually prepared or treated to prevent them from being withdrawn through the adjusting rings?
24. What type of hardware is used to permit rapid adjustments in parachute harness size?
25. What is the function of "V" rings and "D" rings used on parachute harnesses?
26. What are the general features of construction of "lift-the-dot" type fasteners?
27. How are most types of snap fasteners and grommets attached to parachute material?

F. REPAIR

1. How can the correct procedures for repairing a parachute be determined?
2. How are small holes and snags in a parachute canopy usually repaired?
3. What kind of textile material is used to make a parachute canopy repair?

4. What identifying features and corrective actions are associated with "yarn slippage" in parachute canopy materials?
5. What are the common stitching patterns used to attach load bearing rings and snaps to parachute harnesses?
6. How is uniformity of length of nylon suspension lines assured during manufacture of a parachute or the replacement of lines?
7. How can the correct number of stitches per inch to be used during a parachute repair be determined?
8. How can the correct type of seam to be used during a parachute repair be determined?
9. What are the characteristics of a properly formed seam?
10. What type of stitch is normally used in the construction and repair of parachutes?
11. What kind of stitching is used to secure the suspension lines to the canopy skirt and vent hems?
12. How are the ends of a sewed seam usually secured to prevent loosening of the seam?
13. What are the operating principles of rotary-type and oscillating-type sewing machines?
14. What are the usual methods for advancing (feeding) the material through a sewing machine?
15. What are the usual methods of controlling the sewing speed of a power sewing machine?
16. How is the head (or needle) thread and the bobbin thread tension of a sewing machine usually controlled?
17. What factors should be considered when selecting the correct size sewing machine needle to be used to make a repair?
18. What factors should be considered when determining the pressure a sewing machine presser foot should exert upon the material to be sewed?
19. What are the characteristics of a sewed lockstitch seam made by a correctly adjusted sewing machine?

20. What precautions should be observed if load-carrying parachute fittings are refinished or replated?
21. What methods and cleaning products are generally used in cleaning parachute canopy materials?
22. What method is usually recommended for cleaning parachutes that have been submerged in salt water?

Sample Test

This sample test is made up of ten questions from current parachute rigger written tests to show the type of questions used.

1. What part of the Federal Aviation Regulations prescribes the requirements for issuing parachute rigger certificates and associated ratings and the general operating rules for the holders of these certificates and ratings?

1. FAR Part 43.
2. FAR Part 91.
3. FAR Part 1.
4. FAR Part 65.

2. 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 the parachute rigger's signature.
2. The parachute rigger's signature, date, and place of packing.
3. The parachute rigger's certificate number, his signature, the date and place of packing, and a notation of any defects found upon inspection.
4. The date, the parachute rigger's certificate number, and his seal.

3. Select the true statement concerning required packing periods for approved parachutes to be made available for emergency use aboard civil aircraft.

1. Chair-type parachutes shall have been packed by an appropriately rated parachute rigger within the preceding 90 days.

2. There is no specific regulatory requirement concerning required packing periods for the various types of parachutes.
3. All parachutes, regardless of type, shall have been packed by an appropriately rated parachute rigger within the preceding 60 days.
4. If the parachute is other than a chair type, it shall have been packed by an appropriately rated parachute rigger within the preceding 60 days.

4. When laying out a seat- or back-type parachute to be packed on a table, how should the harness (with reference to body position of the wearer) be placed?

1. Face down with head toward the canopy.
2. Face up with head toward the canopy.
3. Face down with head away from the canopy.
4. Face up with head away from the canopy.

5. When packing a parachute, what determines the width of the canopy folds?

1. The width of the suspension line channels.
2. The diameter of the canopy.
3. The width of the pack.
4. The number of suspension line retainers.

6. 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 recommendations or applicable military T.O.
2. The safety tie is sealed with the certificated parachute loft seal in accordance with the manufacturer's recommendations.
3. The safety tie is sealed with the seal symbol issued by the parachute manufacturer.
4. The safety tie is sealed by installing the pack elastics in their respective positions.

7. Select the true statement concerning the opening of a parachute.

1. The pilot chute opens the container when the ripcord is pulled.
2. Pack opening elastics or spring bands pull the pilot chute from within the pack.

3. The pull required to remove the ripcord pins may not exceed 22 pounds.
4. The pull required to remove the ripcord pins from their respective cones is equal to the total pull of all pack opening elastics or spring bands.

8. Which of the following statements is correct in reference to the construction of a gore as used in a standard type parachute canopy?

1. Each gore is composed of four sections which are cut parallel to the centerline of the gore and joined with seams which run diagonal to the warp thread in the section.
2. Each gore is composed of two sections which are cut at a 45-degree angle to the centerline of the gore.
3. Each gore is composed of four sections which are cut at a 45-degree angle to the centerline of the gore and joined with diagonal seams which run parallel to the warp thread in the section.
4. Each gore is a single piece of fabric cut at a 45-degree angle to the centerline of the gore.

9. Select the most completely correct statement in reference to the assembly of the suspension lines and canopy (standard type parachute).

1. The suspension lines are enclosed in channels which are produced by the diagonal seam stitching.
2. The suspension lines are enclosed in channels which are produced by the radial seam stitching, and the entire length of each line is lock-stitched to the canopy.
3. The suspension lines are enclosed in channels which are produced by the diagonal seam stitching, and each line is lock-stitched to the canopy vent ring only.
4. The suspension lines are enclosed in channels which are produced by the radial seam stitching.

10. The pull required to cause the positive and quick operation of the pack opening device shall not exceed

1. 300 pounds applied for not less than 3 seconds.
2. 170 pounds applied for not less than 2 seconds.
3. 22 pounds.
4. 7 pounds.

ANSWERS TO SAMPLE TEST QUESTIONS

1—4	4—1	7—3
2—3	5—3	8—3
3—4	6—1	9—4
		10—3

ORAL AND PRACTICAL TESTS

Oral and practical tests may be administered by FAA inspectors or by FAA-designated parachute rigger examiners. The test questions and projects are always directed toward the specific type of parachute for which a rating is being sought. An oral and practical test must be taken for each type rating issued during original certification (except in the case of military or former military applicants for senior parachute rigger certificates). When ratings are added to a senior or master rigger's certificate, a practical test is required for each rating in addition to the experience requirement. Arrangements for the oral and practical test should be made in advance of the date of examination.

If an FAA inspector gives the oral and practical test, the 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 enough packing tools and other equipment 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 test.

If a designated parachute rigger examiner gives the oral and practical test, he will assure that suitable facilities and equipment are available to conduct the test. Since these examiners are not paid by the FAA for their services or their facilities and equipment, they are authorized to charge a fee for administering oral and practical tests. The scope of the test is the same, whether administered by an FAA inspector or by a designated examiner.

The person giving the test will provide an application form and will give the applicant instructions on how it should be filled out. He will explain the

tasks that will be assigned during the test and will observe all aspects of the applicant's performance and grade him accordingly.

The oral test is usually given at the same time as the practical test; however, it may be given separately. The examiner will ask questions closely related to the assigned projects so that he can explore the applicant's understanding of the tasks being performed.

A list of the projects an applicant might expect to be assigned during the practical test is shown below. The examiner may assign all or only part of the projects. Since master parachute riggers are permitted to make major repairs and alterations and to instruct and supervise other persons, all their tests will be more extensive than the tests given a senior rigger applicant.

I. PACK A PARACHUTE

A. Preparation

1. Identify, select, and gather the tools, equipment, and technical information necessary to inspect and pack the parachute.
2. Straighten and untangle the canopy, lines, container, and harness (if the parachute is unpacked) or unpack the parachute and stretch it out on the packing table.
3. Attach the apex of the canopy, stretch the suspension lines and risers taut, and anchor them. Straighten the container (and the harness if attached) and arrange in the correct position.

B. Inspection

1. Positively identify the canopy, pack, harness, and all subassemblies as to type, serial number (if applicable), and conformity to the manufacturer's descriptions.
2. Inspect the pilot chute, canopy, suspension lines and channels, apex vent ring, upper and lower lateral bands, risers, webbing, harness, pack, and ripcord or other pack opening device. Verify that the suspension lines are attached to the riser links in the correct order. Identify and note the location and extent of all damage, weak spots, tears, ripped seams, mildew, stains, rust, acid deterioration, breaks, fraying, loose

stitches, etc. Do not make repairs or clean the canopy as a part of this project unless directed to do so by the examiner.

C. Folding and Stowing

1. Fold or flake the canopy gores in the correct order and position. Place suspension lines in the line holders in the correct order and position. Double each group of folded gores toward the center of the folds so that the width of the folded panels is correct.
2. Stow the suspension lines in the pack in the correct position and order of stowing in the line holders.
3. Accordion-fold the canopy onto the pack.
4. Fold and pack the pilot chute in its correct order.

D. Closing, Finishing, and Sealing

1. Close the pack flaps in the correct sequence.
2. Insert the ripcord (or other release device).
3. Finish and smooth the pack.
4. Seal the pack.
5. Fasten the pack opening bands and all remaining tabs, protector flaps, etc.
6. Fill out parachute record card.

This list is not intended to describe the operations or order of operations for packing any type of parachute, but merely to show the grading elements that the examiner will observe during the test. The assigned parachute for this project will be the type for which a rating is being sought. If more than one type rating is applied for, one parachute of each type will be assigned. Master parachute rigger applicants will always be assigned at least two types of parachutes.

The examiner will expect parachutes used for this project to be packed in accordance with the manufacturer's instructions, and failure to do so will cause the applicant to fail the practical test for the type rating.

II. HANDLING AND STORAGE

A. Air and dry a parachute in preparation for packing and in conjunction with maintenance.

B. Handle packed and unpacked parachutes during packing and maintenance.

C. Prepare parachutes for various terms of storage or nonuse and properly store parachutes.

Master parachute rigger applicants should be prepared to demonstrate handling and storage of textile materials and parachute hardware in addition to parachutes.

III. MAINTENANCE AND REPAIR

A. Demonstrate the use of sewing machines in common use in the maintenance and repair of parachutes.
   1. Thread the head and bobbin.
   2. Adjust head and bobbin thread tension.
   3. Regulate stitches per inch.
   4. Regulate pressure on material.
   5. Sew various thicknesses and types of material.
   6. Clean and lubricate machine.
   7. Make basic timing adjustments.

B. Demonstrate hand sewing and tacking.

C. Install, adjust, and repair standard snap fasteners, grommets, hooks, and slide fasteners.

D. Recognize and describe stains commonly found on parachutes and take the appropriate corrective action.

E. Fit a harness to a wearer.

F. Plan and execute a minor repair to a canopy, pack, or harness.

It may not be necessary to use an actual parachute if the projects in this group can be realistically performed using scrap materials or parachute parts.

Master rigger applicants will also be assigned major parachute repair and alteration projects.

IV. MISCELLANEOUS

A. Observe safety precautions and procedures in the handling and maintenance of parachutes.

B. Identify and use technical publications.

C. Make appropriate entries in records, logs, and reports of parachute inspection, maintenance, and packing.

PARACHUTE RIGGER SEAL SYMBOLS

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 and secured with a lead seal. 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 that the pack has not been opened since being inspected and packed by a certificated rigger.

When a certificate is first issued to a parachute rigger, the FAA assigns an identifying mark or symbol for his 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 usually be purchased from the manufacturers or suppliers of parachutes and parachute equipment.

APPENDIX

The following lists show the location, address, and telephone number of the FAA Air Carrier and General Aviation District Offices.

AIR CARRIER DISTRICT OFFICES

ALASKA

Anchorage 99502: 4510 Intl. Arpt. Rd.; Tel. 272-5561

Fairbanks 99701: Admin. Bldg., Intl. Arpt., 5640 Arpt. Way; Tel. 452-1276

Juneau: Terminal Bldg., Muni. Intl. Arpt., Star Route 1, Box 592; Tel. 586-3755

CALIFORNIA

Burbank: 7200 N. Vineland Ave., Sun Valley, Calif. 91352; Tel. 875-0410

Los Angeles 90045: 5885 W. Imperial Highway; Tel. 670-7030

San Francisco: Rm. 105, 831 Mitten Rd., Burlingame, Calif. 94010; Tel. 692-2441

COLORADO

Denver: Peoples Bank Bldg., 2nd Flr., 9635 Montview Blvd., Aurora, Colo. 80010; Tel. 297-4101

DISTRICT OF COLUMBIA

20001: West Bldg., Washington National Arpt.; Tel. 521-5600

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U. S. GOVERNMENT PRINTING OFFICE : 1967 O - 281-662