RECOMMENDED PRACTICAL AND ORAL EXAM FOR NZPIA PARACHUTE TECHNICIAN RATING – MASTER

The main reference sources for Parachute Technician certification assessment are the following –

(1) The manufacturers' instructions for the equipment being serviced;
(2) Poynter's "Parachute Manual," latest revision (PPM);
(3) The FAA's AC65-5b "Parachute Rigger's Handbook," latest revision;
(4) The NZPIA Documents, Standards and Procedures Manual (DSPM), latest revision;
(5) All applicable NZ Civil Aviation Rules.

This assessment tool is based on US FAA document faa-s-8081-25b, modified to complement the NZ CAA and NZPIA regulations. Some of the test items are oral, some are practical and some are a combination of the two.

NOTES

1. **There is no standard length** of time prescribed for parachute technician oral and practical tests. However, the testing period must be long enough to make a valid determination in each area of assessment for the certificate sought. Before starting the test, advise the applicant when the day's activities will be terminated and when testing will resume if more than one day is needed.
2. **Practical test:** Not all tasks must be evaluated, but sufficient number for the examiner to make a valid determination of the candidate's competency in all the required areas. Any task selected must be evaluated in its entirety. The minimum passing grade for each Part is 70% of the number of practical projects selected for that Part; every Part must be passed.

   The examiner must personally observe all tasks the applicant performs.
3. **Oral questioning** may be used at any time during the skill/practical test. At least 70% of the number of oral questions asked in each Part must be passed; every Part must be passed.
4. **Unsatisfactory Performance:** If the applicant does not meet the prescribed proficiency level on each assigned task in each required Part, that Part is failed; therefore, the practical test is failed.

   If it becomes obvious during the test that an applicant does not possess sufficient proficiency and is failing a Part, the examiner may discontinue testing. The applicant is entitled credit for only those Parts satisfactorily performed. However, during a re-test and at the discretion of the examiner, any task may be re-evaluated, including those previously considered satisfactory.

   Candidates may re-test twice without penalty, after which the candidate may not re-test again for a period of at least three months.
5. Forward results of all completed evaluations to NZPIA on completion: ceo@nzpia.co.nz

Name of candidate: _____

Date of examination: _____

Start time: _____ End time: _____ Grade: _____ %

Name and signature of Assessor: _____

PART I – CERTIFICATION

Candidate should be evaluated on this whole Part

A. Master Parachute Technician certification requirements

References: NZPIA DSPM ch. 7 & 20

Objective: To determine that the applicant exhibits knowledge of the master parachute technician certification requirements by describing: (65.119)

1. The number of years of experience required.
2. The required method of packing.
3. The minimum number of parachutes packed.

PART II – PRIVILEGES, LIMITATIONS, AND OPERATING RULES

Candidate should be evaluated on at this whole part

A. Master Parachute Technician certificate privileges and limitations

Reference: NZPIA DSPM ch. 7 & 20

Objective: To determine that the applicant exhibits knowledge of Master Parachute Technician Certificate privileges and limitations by describing:

1. What repairs may be accomplished.
2. Whom the master technician may supervise.
3. What the supervised person may accomplish.

B. Performance standards

Reference: NZPIA DSPM ch. 7 & 20

Objective: To determine that the applicant exhibits knowledge of the required performance standards by describing what the regulation states concerning the certificated parachute technician with regard to:

1. Unsafe parachutes.
2. Drying and airing requirement.
3. Alteration of parachutes.
4. Requirements to exercise privileges.

C. Repair classifications

Reference: NZPIA DSPM ch. 7 & 20

Objective: To determine that the applicant exhibits knowledge of repair classifications by describing:

1. What constitutes a major repair.
2. Three examples of major repairs.
3. Who may perform major repairs.
4. What data is used to make a repair.

D. Alterations

Reference: NZPIA DSPM ch. 7 & 20

Objective: To determine that the applicant exhibits knowledge of alterations by describing:

1. What constitutes a parachute alteration.
2. Certificate requirements for a technician to perform alterations.
3. What data is required.
4. How alteration approval may be obtained.

5. Who may perform alterations.

E. TSO 23c requirements

References: TSO 23c; Aerospace Standard 8015A.

Objective: To determine that the applicant exhibits knowledge of TSO 23c requirements by listing the:

1. Seven major components of the complete parachute assembly.
2. Required marking and location of marking on stowage container.
3. Required marking and location of marking on canopy.
4. Required marking on primary actuation device/ripcord.

PART III – PACKING PARACHUTES

Candidate should be evaluated on one of the following:

A. Packing round parachute

Objective: To determine that the applicant demonstrates the procedure for packing a round parachute in accordance with the manufacturer's instructions by:

1. Obtaining the relevant manufacturer instructions.
2. Inspecting the complete assembly.
3. Flaking the canopy.
4. Folding the canopy.
5. Closure of diaper, if applicable.
6. Canopy and line stowage (sequence dependent on model).
7. Placement of pilot chute.
8. Closing the container.
9. Sealing the pack.
10. Making all required record entries.

B. Packing ram-air reserve/auxiliary parachute

Objective: To determine that the applicant demonstrates the procedure for packing a ram-air parachute in accordance with the manufacturer's instructions by:

1. Obtaining the relevant manufacturer instructions.
2. Inspecting the complete assembly.
3. Flaking the canopy.
4. Folding the canopy.
5. Installation of deployment bag or diaper closure, if applicable.
6. Canopy and line stowage (sequence dependent on model).
7. Placement of pilot chute.
8. Closing the container.
9. Sealing the pack.
10. Making all required record entries.

PART IV – PARACHUTE OPERATION AND CARE

Candidate should be evaluated on at least two of the following:

A. Parachute storage

Reference: PPM

Objective: To determine that the applicant demonstrates preparing a parachute for extended storage by:

1. Unpacking the parachute.
2. Roll packing the canopy.
3. Positioning slider if installed.
4. Daisy chaining lines.
5. Removing rubber bands from assembly.
6. Separating canopy assembly from container, if necessary.
7. Placing assembly in storage container.

B. Parachute drying and airing

Reference: PPM

Objective: To determine that the applicant:

1. Exhibits knowledge of procedures for drying and airing parachute assemblies by describing—
   a. Recommended airing time.
   b. Method and conditions when airing time may be reduced.
   c. Recommended atmospheric conditions in the packing area.
2. Demonstrates hanging a round canopy and chaining the suspension lines.
3. Demonstrates hanging a ram-air canopy.

C. Cleaning parachute canopies

Reference: PPM

Objective: To determine that the applicant:

1. Exhibits knowledge of cleaning parachute canopies by describing—
   a. Which canopies could be washed if absolutely necessary.
   b. The effect washing would have on the permeability of a ram-air canopy.
   c. How hard water may be softened.
   d. The washing process (including the handling of the canopy during the wash).
   e. How the canopy should be dried and the maximum temperature and time a heated drying room may be used.
2. Demonstrates spot cleaning a sample piece of nylon canopy material soiled with grease.

D. Cleaning parachute harness/container

Reference: PPM

Objective: To determine that the applicant:

1. Exhibits knowledge of cleaning parachute harness/container assemble by describing—
   a. How the harness/container may be cleaned.
   b. How Velcro should be protected during washing.
   c. The effects of washing the harness webbing in overly hot water or overly strong soap solution.
   d. How the hardware should be protected after cleaning.
   e. The effects of cleaning solvents on nylon and Lexan plastic.
2. Demonstrates litmus testing of an area of suspected acid contamination on a sample piece of container material.

E. Requirement of the assist device in a pilot chute static line

Reference: PPM

Objective: To determine that the applicant:

1. Exhibits knowledge by describing the Federal Aviation Regulations requirements concerning—
   a. When an assist device will be employed.
   b. The length of the assist device.
   c. The static load strength of the assist device.
   d. Who may attach an assist device to a main parachute.
2. Exhibits knowledge of pilot chute deployment by pin type static line employing an assist device, by describing the sequence of events in the deployment cycle.
3. Demonstrates inspection of a pin type static line with attached assist device.

F. Requirement of the assist device in a direct deployment static line

Reference: PPM

Objective: To determine that the applicant:

1. Exhibits knowledge by describing the 14 CFR requirements concerning—
   a. When an assist device will be employed.
   b. The length of the assist device.
   c. The static load strength of the assist device.
   d. Who may attach an assist device to a main parachute.
2. Exhibits knowledge of direct deployment of main parachute canopy by break cord static line, by describing the sequence of events in the deployment cycle.
3. Demonstrates inspection of a break cord static line with attached assist device.

PART V – PARACHUTE CONSTRUCTION DETAILS

Candidate should be evaluated on the following

A. Webbing joint construction

Reference: PPM

Objective: To determine that the applicant:

1. Exhibits knowledge of webbing joint construction by describing—
   a. Which yarns of the webbing material provide the load bearing capacity.
   b. Which stitch patterns provide the greatest strength in webbing.
   c. The number of stitches per inch commonly used on webbing and the minimum edge distance.
   d. Why stitching on webbing should extend1 stitch over the end of the webbing material.
2. Demonstrates constructing a sewn sample harness chest strap joint, using 3-point W W stitching on Type 8 webbing.
3. Demonstrates constructing a sewn sample harness hip junction, using 4-point W W stitching on Type 7 webbing.

And at least one of the following:

B. Seam construction defects

Reference: PPM

Objective: To determine that the applicant demonstrates identification of various seam construction defects from examples of the following:

1. A correctly sewn seam.
2. A raw edge defect.

3. Excess material beyond desired seam width.
4. Under fold condition (insufficient material inside seam width).
5. Over fold condition (excess material inside seam width).

C. Parachute construction knots

Reference: PPM

Objective: To determine that the applicant demonstrates forming the following types of parachute construction knots:

1. Clove hitch.
2. Lark's head.
3. Two overhand.
4. Bowline.
5. Surgeon's, with locking tie.

D. Fabric construction

Reference: PPM

Objective: To determine that the applicant demonstrates fabric construction details, by indicating on a sample of parachute cloth the:

1. Fabric warp yarn.
2. Fabric fill yarn.
3. Selvage edge.
4. Rip stop weave.

E. French fell seam construction

Reference: PPM

Objective: To determine that the applicant demonstrates construction of 301 LSc-2 French fell seam by:

1. Selecting the correct sewing machine.
2. Setting up the sewing machine to sew with E size A-A-59826 thread on MIL-C-4438 cloth at the correct number of stitches per inch.
3. Constructing a bias 1-foot sample of a French fell seam on MIL-C-4438 cloth.
4. Examining the sewn sample for any irregularities.

F. Technical standard order TSO-C23C

References: TSO-C23c; Aerospace Standard 8015A.

Objective: To determine that the applicant exhibits knowledge of technical standard order requirements by listing:

1. Types of parachutes specified.
2. Categories of parachutes specified.
3. Seven major components of a parachute assembly.
4. Primary actuation device test load and functional requirements.
5. Marking requirements for stowage container, canopy, and primary actuation device.
6. Strength test requirements for a category B parachute assembly.

G. Technical standard order TSO-C23b

References: TSO-C23b; NAS-804.

Objective: To determine that the applicant exhibits knowledge of technical standard order requirements by listing:

1. Types of parachutes specified.
2. Fitting material requirements.
3. Maximum pull force required to open pack.
4. Required information marking on pack.
5. Required information marking on canopy.
6. Ripcord tension test requirements.
7. Requirement for inspection data pocket.
8. Strength test requirement for a low speed parachute drop at 125 mph.

H. Fastener tapes

Reference: PPM

Objective: To determine that the applicant exhibits knowledge of fastener tapes (hook and loop) and factors that affects their functions by describing the:

1. Position at installation of the two sides.
2. One-way hook tape.
3. Effect of cutting the tape lengthwise.
4. Effect of temperature on tapes.
5. Effect of water on tapes.

I. Finger trap loop construction

Reference: PPM

Objective: To determine that applicant:

1. Exhibits knowledge of finger trap construction by describing—
    a. The tools necessary to form loop.
    b. The method of tensioning and marking cord.
    c. Types of stitching used to secure the loop.
    d. The method of trimming the cord end.
    e. The length of stitching necessary to secure the loop.
    f. Construction irregularities to be avoided.
2. Demonstrates constructing a 1-inch finger trap loop in a coreless Dacron cord sample.

J. Radial seam construction

Reference: PPM

Objective: To determine that the applicant demonstrates construction of an LSc-4 radial seam by:

1. Setting up a sewing machine to sew with E size MIL-C-7020 cloth at the correct number of stitches per inch.
2. Constructing a bias 1-foot sample of a 301-LSc-4 radial seam enclosing a section of suspension line.
3. Examining the sewn sample for any seam defects.

K. Fabricate binding corners

Reference: PPM

Objective: To determine that the applicant demonstrates fabrication of 90 degree binding corners by:

1. Cutting binding tape for the corner, folding and sewing a simple bound corner.

2. Constructing an example of a binding finishing corner on a panel.

L. Threading friction adapter

Reference: PPM

Objective: To determine that the applicant demonstrates threading friction adapters by:

1. Selecting compatible webbing.
2. Threading an adapter.
3. Preparing the terminal either by the split, wrap and sew method or by folding over and sewing.

PART VI – PARACHUTE REPAIR

Candidate should be evaluated on the following Task:

A. Single patch (basic patch) canopy repair

References: PPM; FAA-H-8083-17.

Objective: To determine that the applicant demonstrates constructing a single patch canopy repair by:

1. Laying out and marking the damage area.
2. Selecting proper material.
3. Orientating patch material warp and filler threads to the canopy.
4. Cutting and folding the patch.
5. Sewing inside seam.
6. Removing damaged area.
7. Sewing outside seam.
8. Thoroughly inspecting and ensuring the stitching has not captured a line or adjacent material.

And at least two (2) of the following:

B. Replacement of non-continuous control line (ram-air canopy)

Reference: FAA-H-8083-17.

Objective: To determine that the applicant demonstrates replacement of` non-continuous control line on a ram-air canopy by:

1. Measuring existing lines, record original dimensions.
2. Cutting new line for the upper steering lines.
3. Fabricating the new uppers by finger trapping and sewing.
4. Fabricating the lower steering line, finger trapping the brake set loop.
5. Fabricating the tog line and finger trapping to the steering line.
6. Attaching the new lower control line assembly to the upper steering lines.
7. Attaching the steering lines to the canopy.
8. Applying tension to the complete control line assembly ensuring correct dimensions.
9. Sewing and trimming all finger trappings.
10. Positioning (route line through guide ring) and tying toggle.
11. Check finished dimension against original dimensions.

C. Application of non-destructive test method ts-108 (Pull Test)

Reference: Parachute Industry Association Publications Technical Standard 108.

Objective: To determine that the applicant:

1. Exhibits knowledge of the following by describing the—

a. Purpose of the test.
b. Tools and materials required.
c. Test procedure.
d. Chemical indications.

2. Demonstrates the test procedure.

D. Line attachment loop replacement

Reference: PPM

Objective: To determine that the applicant:

1. Demonstrates preparation for suspension line attachment loop replacement on a ram-air canopy by selecting the—
   a. Required repair materials.
   b. Appropriate sewing machine.
   c. Required tools.
2. Demonstrates replacing a suspension line loop.

E. Removal and installation of grommets

References: PPM; FAA-H-8083-17.

Objective: To determine that the applicant demonstrates removal and installation of grommets by:

1. Cutting the rolled barrel of the old grommet, then separating the barrel and washer from the material.
2. Stitching the perimeter of the hole, for reinforcement.
3. Installing new grommet tight enough that it cannot be rotated in the material by hand and with no rough edges.

F. Sewing machine operation

References: PPM; Sewing Machine Manual.

Objective: To determine that the applicant demonstrates sewing machine operation by:

1. Threading the machine.
2. Setting the tension.
3. Adjusting the number of stitches per inch.
4. Stitching a canopy seam.

G. Cascade line replacement

References: PPM; FAA-H-8083-17.

Objective: To determine that the applicant:

1. Demonstrates preparation for replacement of a cascade line by selecting—
   a. Repair materials.
   b. Adjusting sewing machine.
   c. Equipment (tools).
2. Demonstrates procedure for replacing a cascade line.

H. Nicopress sleeve installation

Reference: PPM

Objective: To determine that the applicant demonstrates Nicopress sleeve installation by oral understanding of requirements -

1. Selecting proper size fitting.
2. Cutting the cable.
3. Gauging the sleeve after pressing.

I. Replacement of v-tab (butterfly tab)

Reference: PPM

Objective: To determine that the applicant demonstrates replacement of V-tab (butterfly tab) by:

1. Removing only those stitches required.
2. Fabricating a new V-tab.
3. Positioning and tacking new tab in place.
4. Applying straight stitching to appropriate area.
5. Applying zigzag stitching to appropriate area.
6. Repositioning suspension line in V-tab and applying final stitching.

J. Replacement of continuous suspension line

Reference: PPM

Objective: To determine that the applicant demonstrates replacement of continuous suspension line by:

1. Stitch removal.
2. Pre-stretching the replacement line.
3. Measurement of the replacement line.
4. Installing the new line into the canopy.
5. Positioning of lines in their respective links, including knotting and sewing.

K. Suspension line replacement in ram-air canopy

References: PPM; FAA-H-8083-17.

Objective: To determine that the applicant demonstrates suspension line replacement in a ram-air canopy by:

1. Removing damaged line.
2. Measuring the replacement line.
3. Positioning of lines in respective links, including knotting and sewing.
4. Positioning of the main line to the canopy.
5. Installing cascade line.
6. Rechecking all measurements.
7. Bar tacking all open line ends.
8. Inspecting work.

L. Container repair

References: PPM; FAA-H-8083-17, Parachute Rigger Handbook

Objective: To determine that the applicant:

1. Demonstrates preparation for container repair by selecting—
    a. Repair material.
    b. Adjusting the sewing machine.
    c. Required tools.
2. Demonstrates the procedure for container repair.

M. Ram-air canopy repair limitations

References: PPM; FAA-H-8083-17
Objective: To determine that the applicant demonstrates knowledge of ram-air canopy repair limitations for both certificated and non-certificated canopies, by listing limits for the following repairs:

1. Re-stitching.
2. Single outside patch.
3. Basic patch.
4. Panel patch.
5. Suspension lines.

N. Ram-air canopy patch repair adjacent to a seam

References: PPM; FAA-H-8083-17
Objective: To determine that the applicant demonstrates fabrication of a patch on a ram-air canopy in an area that requires the opening of a seam to accept the patch material. The applicant:

1. Indicates the personnel certification requirements for this repair to both a certificated and non-certificated canopy.
2. Selects materials for the repair (fabric and thread).
3. Selects sewing machine.
4. Selects other required tools.
5. Lays out canopy and removes stitching.
6. Lays out patch and pins.
7. Sews patch and seam.
8. Inspects work.

O. Chest strap replacement

Reference: FAA-H-8083-17.
Objective**:** To determine that the applicant demonstrates skill necessary to replace the harness chest strap by:

1. Removal of any obstructing periphery blocking access to the chest strap/main lift web.
2. Removal of the harness stitching and old chest strap webbing.
3. Cleaning of the junction area.
4. Marking of original stitch pattern.
5. Determine new material requirements.
6. Sew any edging if required by the original patter.
7. Place new strap (glue as required) and using a harness machine sew into the junction.
8. Thread through or place any hardware as required on strap then sew stop end.
9. Reinstall any periphery that was removed to facilitate the repair (i.e. back pad, ripcord housing, etc.)
10. Inspect repair.

P. Container internal (hidden) panel repair.

Reference: FAA-H-8083-17.
Objective**:** To determine that the applicant demonstrates skill necessary to repair tears or punctures to container panels by:

1. Removal of obstructing parts or assemblies.
2. Inspection of damage.

3. Temporarily closing the damaged area from the outer surface with adhesive tape.
4. Placing repair material (Ty-3 type) over damaged area.
5. Sewing (single stitch) patch to panel.
6. Sewing (zigzag) exposed damage area to patch.
7. Inspect repair.

Q. Main container side flap replacement

Reference: FAA-H-8083-17.

Objective**:** To determine that the applicant demonstrates skill necessary to replace a main container side flap by:

1. Readying container for repair by removing all obstructing periphery.
2. Opening the seam joining the flap to the main body of the container, and removing the damaged flap.
3. Position new flap in container and sew in place. Ensuring that the replacement sewing duplicates the opposite side, and closes any seams opened in adjacent components.
4. Reinstall binding tape (either new or used), ensuring that tape is properly overstitched for reinforcement.
5. Closing the bottom of the container as per the original and reinforce as required.
6. Inspect repair.

R. Bottom of container (BOC) pocket replacement

Reference: FAA-H-8083-17.

Objective**:** To determine that the applicant demonstrates skill necessary to replace a BOC pocket by:

1. Readying container for repair, may require complete unpacking of container.
2. Marking corner positions of the original installation.
3. Open the lower right corner of the main container and remove old BOC pocket.
4. Position the new pocket in place temporally with pins.
5. Sew in place with single needle machine, backstitching corners for reinforcement.
6. Re-stitch the corner of the main container as per original configuration.
7. Inspect repair, ensuring correct pocket orientation.

S. Square canopy partial panel replacement

Reference: FAA-H-8083-17.

Objective**:** To determine that the applicant demonstrates skill necessary to replace a partial panel in a square canopy by:

1. Marking damaged area, and unpicking appropriate seams.
2. Laying out and pinning canopy.
3. Cutting appropriate amount and type of replacement fabric, ensuring correct weave pattern.
4. correctly positioning the new fabric over the damage area allowing enough margin to form half a French fell seam, checking the tensioning of the two panels, and pinning in place.
5. Sewing the outside of the new panel.
6. Reversing and removing the damaged panel, and forming the French fell seam at the raw edge, and sewing it closed.
7. Sewing in any reinforcing tape.
8. Repairing any damaged ribs.

9. Re-stitching seams that were opened to gain access, ensuring to overstitch a minimum of 2 inches on each end.
10. Reinstalling any line tabs that may have been removed, ensuring it is not twisted.
11. Inspecting repair.

T. harness repair

References: PPM; FAA-H-8083-17

Objective: To determine that the applicant:

1. Demonstrates preparation for harness repair by selecting—
    a. Repair material.
    b. And adjusting the sewing machine.
    c. Required tools.
2. Demonstrates the procedure for harness repair.

U. Canopy repair

References: PPM; FAA-H-8083-17

Objective: To determine that the applicant:

1. Demonstrates preparation for canopy repair by selecting—
    a. Repair material.
    b. Adjusting the sewing machine.
    c. Required tools.
2. Demonstrates the procedure for canopy repair.

V. Line repair

References: PPM; FAA-H-8083-17

Objective: To determine that the applicant:

1. Demonstrates preparation for line repair by selecting—
    a. Repair material.
    b. Adjusting the sewing machine.
    c. Required tools.
2. Demonstrates the procedure for line repair.

W. Lower leg strap shortening

References: PPM; FAA-H-8083-17

Objective**:** To determine that the applicant demonstrates skill necessary to shorten lower leg straps by:

1. Disassembling webbing hardware and removal of stitching in the rolled end.
2. Measuring and trimming straps to new length.
3. Reassembling hardware, folding webbing to the appropriate configuration for the installed hardware.
4. Sewing rolled stop end on harness machine.
5. Inspecting repair (check stitching, insure no twist in strap and rolled end faces outward).

X. Standard harness main lift web replacement

References: PPM; FAA-H-8083-17

Objective: To determine that the applicant demonstrates skill necessary to replace harness main lift web (original harness as pattern) by:

1. Removing all obstructing periphery that may interfere with work.
2. Disassembling strap junctions, cleaning of old thread and glue.
3. Measuring and cutting of new webbing.
4. Beginning at the riser end, configuring the web, duplicating original pattern.
5. Reattaching and reinstalling any attachments and hardware initially removed.
6. Inspecting completed repair against opposite side original web (± .25" tolerance).
7. Making an example packing data card and technician logbook entries.

Y. Main riser 3-ring locking loop replacement

References: PPM; FAA-H-8083-17

Objective: To determine that the applicant demonstrates skill necessary to replace the locking loop on the main riser 3-ring release by:

1. Disassembling of the old locking loop and removal of the confluence wrap.
2. Cutting a new loop.
3. Marking and positioning the new loop.
4. Sewing the new loop on the riser.
5. Trimming excess material from loop and reinstalling the confluence wrap.
6. Inspect repair and making an example packing data card and technician logbook entries.

PART VII – PARACHUTE ALTERATIONS.

Candidate should be evaluated on the following Task:

A. D- or V-RING INSTALLATION

Reference: PPM

Objective: To determine that the applicant demonstrates D- or V-ring installation by:

1. Ensuring approved data is available.
2. Selecting compatible snap and ring.
3. Selecting appropriate webbing.
4. Determining proper number of stitches per inch.
5. Determining stitch pattern.
6. Sewing an example installation.

And at least one of the following:

B. Alteration data approval

Objective: To determine that the applicant demonstrates alteration procedures by:

1. Listing those sources in which previously approved data can be found.
2. Explaining the procedure for obtaining data approval in cases in which no previously approved data exist.
3. Making a sample recordation of a completed alteration.

C. Install an automatic activation device (container not factory ready)

Reference: Manufacturer's Data.

Objective: To determine that the applicant can demonstrate altering a parachute container to accept an automatic activation device by:

1. Ensuring approved data is available.

2. Assembling necessary materials and equipment.
3. Performing layout of material.
4. Cutting material to size and shape.
5. Performing sewing operations.
6. Installing grommets.
7. Installing automatic activation device (AAD).
8. Function test AAD, if required, making appropriate record entices.

D. Bridle cord alteration

Reference: PPM

Objective: To determine that the applicant exhibits knowledge of bridle cord alteration by describing:

1. Approve data acquisition.
2. Function of bridle cord.
3. Possible effects of change in length.
4. Data required to alter.
5. Attachment methods (including tacking).
6. Strength requirements.

E. Conversion of ripcord deployment to hand-deployed pilot chute

Reference: PPM

Objective: To determine that the applicant exhibits knowledge of conversion of ripcord deployment to hand deployed pilot chute by describing:

1. Ensuring approved data is available.
2. Removal of ripcord pocket and housing.
3. Removal of pilot chute.
4. Selection of replacement bridle cord.
5. Installation of Velcro.
6. Installation of curved locking pin to bridle.
7. Installation of pilot chute pouch and pilot chute.
8. Recordation.

F. Fabricate a canopy deployment bag

Reference: Manufacturer's Manual.

Objective: To determine that the applicant can fabricate a canopy deployment bag by:

1. Ensuring approved data is available.
2. Selecting proper data (for the subject container).
3. Assembling the necessary materials and equipment.
4. Laying out the materials.
5. Cutting to size and shape.
6. Installing grommet(s).
7. Performing sewing operations.

G. Installation of a single side reserve static line (RSL) system

References: PPM; FAA-H-8083-17.

Objective**:** To determine that the applicant demonstrates all operations required to install a single side reserve static line system by:

1. Ensuring approved data is available.
2. Installing riser attachment ring.
3. Modifying the ripcord housing to except lanyard ring.
4. Installing ripcord guide rings and lanyard stows in container.
5. By fabricating lanyard.
6. Ensuring that the cutaway release cables are of the proper length to allow proper sequencing of the riser release at cut away.
7. Amending the packing instructions to reflect the modification's packing requirements.
8. Making a sample recordation of a completed alteration.

Assessors' Notes / Comments (attach extra sheets if necessary): _____