

Chapter 1

SMOKEJUMPER PARACHUTE EQUIPMENT



LESSON PLAN OUTLINE

PROGRAM: SMOKEJUMPER

LESSON: SMOKEJUMPER PARACHUTE EQUIPMENT

OBJECTIVES: Upon completion of this unit, trainees will be able to name the components of the smokejumper parachute system and be required to complete error free suit-ups within specified time limits.

INTRODUCTION: Smokejumping requires the development of specialized jumping equipment to facilitate safe parachute landings in timbered and other hazardous terrain. Individual smokejumpers are responsible for the proper use and care of all the equipment assigned for their use. The smokejumper can depend upon the equipment for a high degree of protection if it is adjusted properly and kept in good repair.

I. SMOKEJUMPER PARACHUTE EQUIPMENT

A. During a demonstration explain the use and care of each item.

Check the material for rips and tears, check zippers for proper function and make certain the pads are tacked securely. On the pants, adjust suspenders and crotch strap to the proper fit.

1. Jump suit and accessories

a. Jacket

- (1) Kevlar material
- (2) High, protective padded collar
- (3) Rib pads
- (4) Shoulder pads
- (5) Elbow pads
- (6) Static line tab or rubber bands on left shoulder
- (7) Spine protector

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b. Pants

- (1) Kevlar material
- (2) Adjustable suspenders
- (3) Adjustable crotch strap
- (4) Hip pads
- (5) Full length zippers
- (6) D-rings
- (7) Leg pockets and closures

c. Helmet

- (1) Motorcycle type
- (2) Wire face mask (check for breaks).
- (3) Face mask retainer strap or cord (check for wear).
- (4) Chin strap (check strap for wear and damage).
- (5) Mouth guard (optional)

d. Nomex Flight Gloves

- (1) Tight fit, fire resistant
- (2) Used to enhance agility of fingers

e. Personal Gear Bag (PG Bag)

- (1) Check stitching on material and fittings for excessive wear or breaks.
- (2) Attaches to harness under reserve parachute.
- (3) Contents depend on local base policy.

f. Packout Bag

- (1) Check stitching on material and fittings for excessive wear or breaks.
- (2) Bag is used for carrying entire jump suit/parachute/and other firefighting equipment.

g. Letdown System

- (1) Tubular nylon $\frac{3}{4}$ inches in width, 150 ft. in length in stuff bag or bird nest.
- (2) 2 D-rings in jump pants to provide friction point.
- (3) Locking carabineer.

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h. Signal Streamers

- (1) Ground to air communication.
- (2) Drift streamer for wind indicator.

2. H-5 Harness Assembly

- a. Check all harness hardware for smooth operation and check stitching and webbing for excessive wear or cuts.
- b. Capewell fittings.
- c. FS-14R Reserve parachute attachment points.
- d. Chest strap adjustment.
- e. Fastex.
 - (1) FS-14R attachment is black one inch.
 - (2) PG Bag attachment is beefier (1 ¼”) black.

3. Parachutes

- a. See rigging manuals for care and maintenance of systems.
- b. FS-14 main canopy.
 - (1) Static line operated backpack.
 - (2) Steerable round parachute.
 - (3) Three sizes.
 - (a) Small 28’ diameter
 - (b) Medium 30’ diameter
 - (c) Large 32’ diameter
 - (4) Forward speed approximately 10 mph.
 - (5) Descent rate approximately 15 fps.
- c. FS-14R reserve canopy.
 - (1) Center pull handle activated, manually deployed chest back with detachable pilot chute.

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- (2) Steerable 26' conical design.
- (3) Meshed tri-vent steering system with soft toggles.
- (4) 20 suspension lines with 20 block constructed gores-3 and 4 sections per gore.
- (5) Uses a diaper to provide for staged deployment.
- (6) Mesh slider improves opening speed and order.

B. Suit up and prejump equipment check demonstration

1. Fully suit and inspect one jumper.
2. Explain prejump equipment check and sequence.

C. Demonstrate the deployment sequence for each type parachute.

1. Break down one of each model, main and reserve.

D. Questions and discussion.

III. SMOKEJUMPER PREJUMP EQUIPMENT CHECKS

- A.** See Prejump Equipment Check in Chapter 2 Aircraft Procedures Section 1 F.

IV. SMOKEJUMPER PARACHUTE EQUIPMENT EVALUATION PARAMETERS

- A.** At the completion of this training unit, the trainee will be able to:
1. Correctly identify the components of the USFS parachute equipment system.
 2. Perform a complete suit-up drill without error.

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3. Perform progressive timed suit-ups without error within each unit's designated time frame (most bases will have trainee correctly suited within 2 minutes consistently). Suit-up will be done from "quick suit-up rack" or by putting individual components on in individual sequence.
4. Perform smokejumper pre-jump equipment checks without error.