

National Cave Rescue Commission

Student Preparation Guide

NCRC requires students in its Level 1, 2 and 3 classes to demonstrate basic skills prior to participation. Level 1 and 2 students must know how to tie the knots listed below, and will be scored on neatness and efficiency. They will be tested on basic single ropes techniques (SRT) competency, and will be scored on safety and efficiency. Level 3 students must have sound SRT skills, patient packaging skills, and rescue rigging skills. They will be scored on safety and efficiency. All entrance skills tests have time limits. Retraining and retesting is allowed to varying extents, depending on Level.

Entrance Skills for Level 1 & 2 Students

Knots:

Tie the following with 11 mm rescue rope unless otherwise noted. 15 minutes

Figure Eight on a Bight

Figure Eight Follow Through

Double Figure Eight Knot

Bowline with safety (Yosemite acceptable)

Münter Hitch

Butterfly Knot

Clove Hitch with safety

Trucker's Hitch

Ring Bend (Water Knot) in webbing

Double Overhand Bend (Double Fisherman's Knot, Barrel) in 8mm cord

Prusik Hitch (3 wrap) in 8 mm cord on rescue rope

Personal Vertical System and SRT:

Starting with gear in pack, ascend 10 meters, change over to rappel, and descend. 20 minutes

Entrance Skills for Level 3 Students

Patient Packaging:

Package a patient in a rigid litter for a haul in a vertical orientation. 12 minutes. Any technique appropriate for patient's medical condition allowed.

Rescue System Rigging:

Build & Operate a 3:1 or 4:1 Haul & Lower System with Belay.
Assume a one-person load. Use life support anchors and equipment.

Personal Vertical System and SRT:

Ascend 20 meters, change over to rappel, and descend, passing a knot in both directions. 15 minutes. Begin with gear in pack; while rappelling demonstrate a lock off.

NCRC Seminar, Required Personal Equipment

Personal equipment must be in safe, usable condition and marked to identify the owner. Equipment deemed unsafe or unacceptable during check-in must be replaced prior to the student's continued participation in the course.

CLIMBING HELMET

UIAA or CE approved mountaineering style helmet with three (or more) point suspension, and non-elastic chinstrap

THREE SOURCES OF LIGHT

All capable of allowing you to exit the cave. At least two should be electric and two helmet-mountable.

BOOTS

Sturdy, rubber soled

RUGGED CLOTHING

SIX LOCKING CARABINERS

Independent of your ascending or descending systems

DESCENT DEVICE

Any of the following types of devices are acceptable:

1. standard rack
2. four-bar Micro rack with a hyper-bar (4 bars total)
3. bobbin with safety carabiner (*Bobbin is a generic term for devices like the Petzl Stop. You can use any of the commercially available brands/models.*)
4. "Rescue Eight" with ears

SEWN SEAT HARNESS

ASCENDING SYSTEM

Complete working system with at least two points of gripping attachment to the seat harness

1. An additional ascender or prusik must be available for crossing knots, etc.
2. One of the system's ascenders must be functional as a Quick Attachment Safety (QAS)
3. Frog system must have a link (e.g., long cowstail) from their upper ascender to their harness

Note: we strongly encourage use of a caving ascending system that employs mechanical ascenders. Frog, Mitchell, Texas, and Rope Walker systems are common examples. While you might be able to get by with an improvised system, a well-tuned caving system will be better suited to seminar activities. Examples of these systems are illustrated in pages 6 and 7, and can be purchased from numerous caving equipment vendors.

GLOVES

Must have leather palms and full fingers

WATER BOTTLES

Two quarts recommended

SMALL, PERSONAL FIRST AID KIT

Optional, but recommended

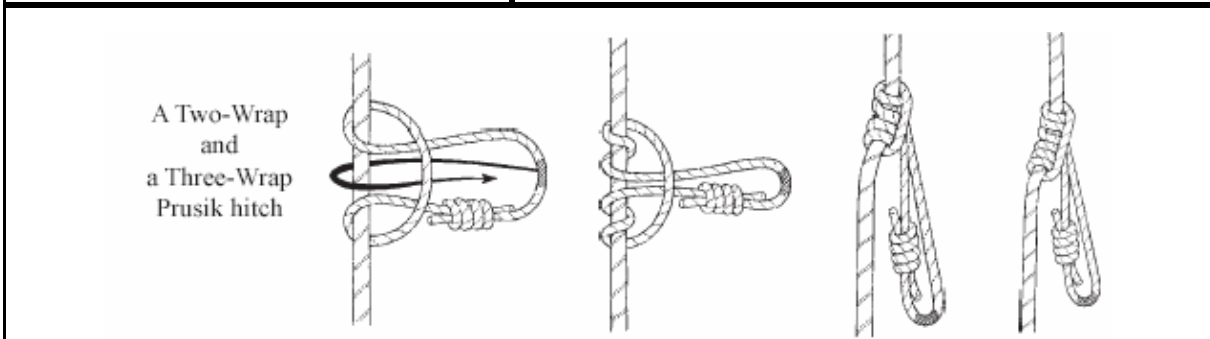
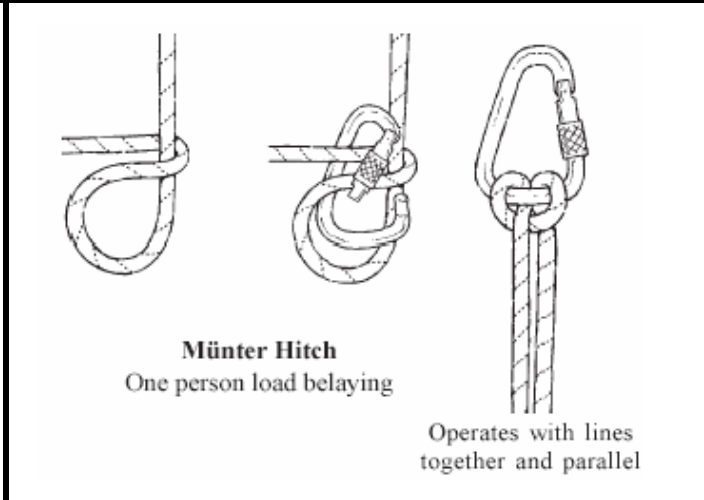
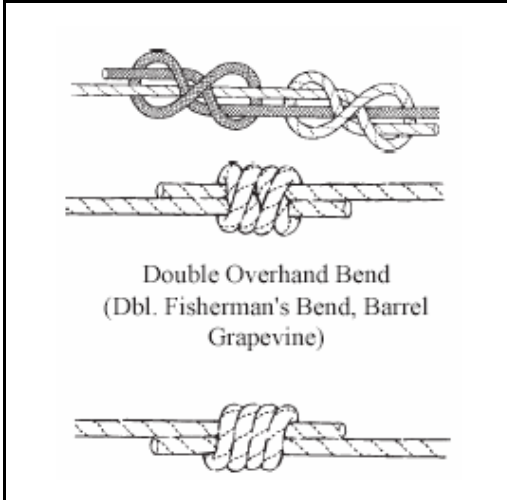
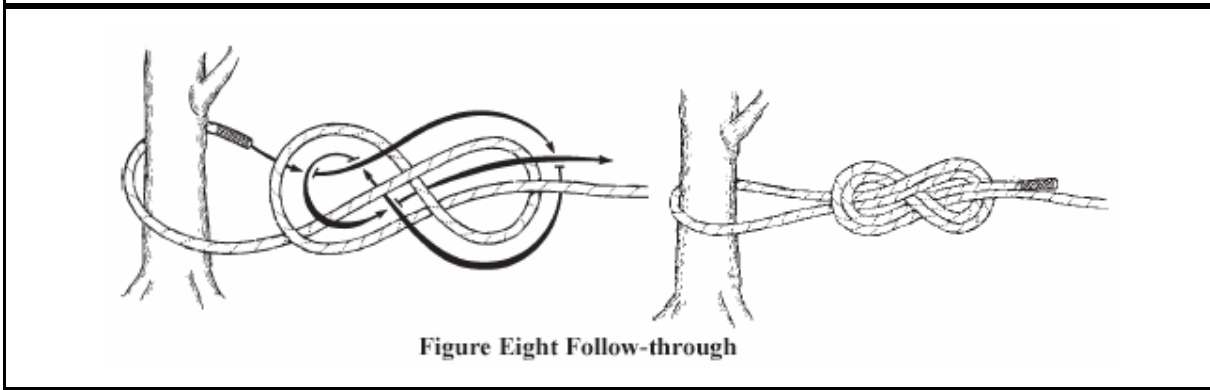
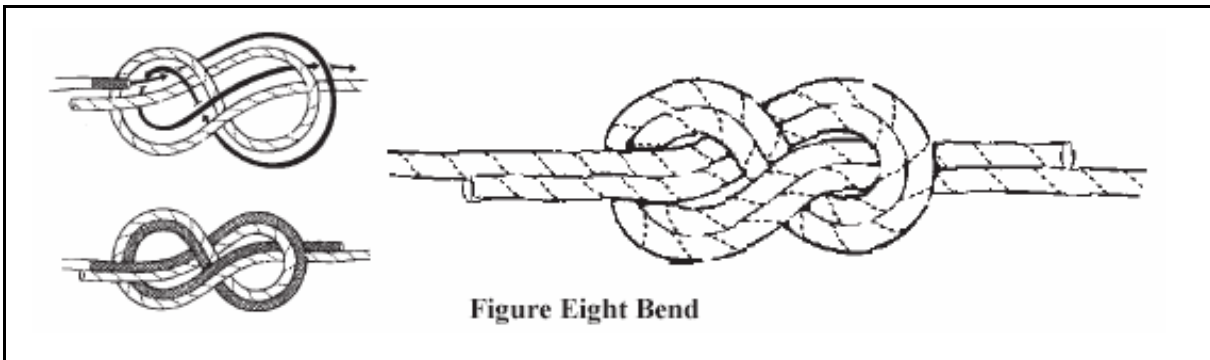
SMALL, HEAVY-DUTY PACK

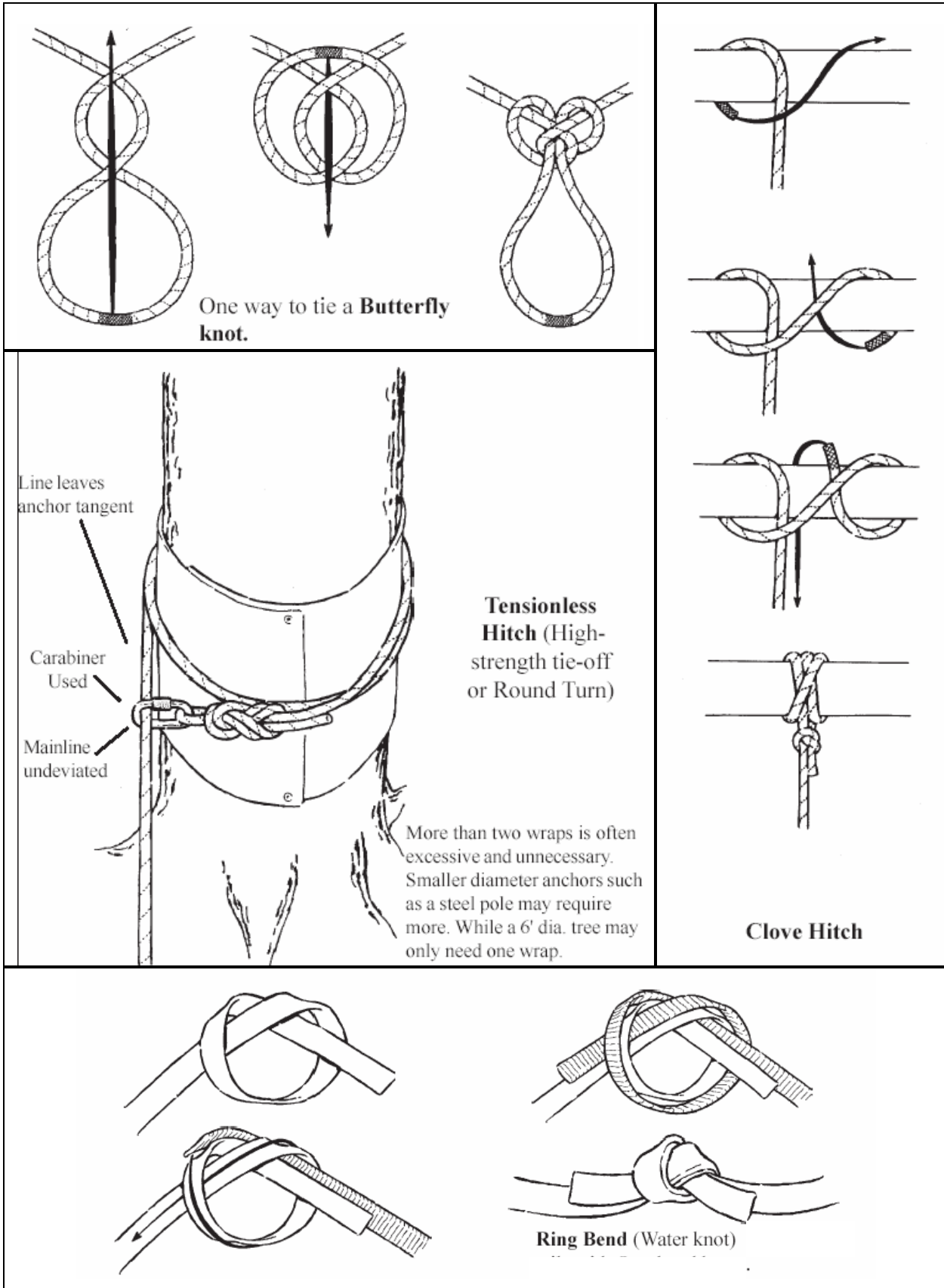
Used to carry personal gear around underground

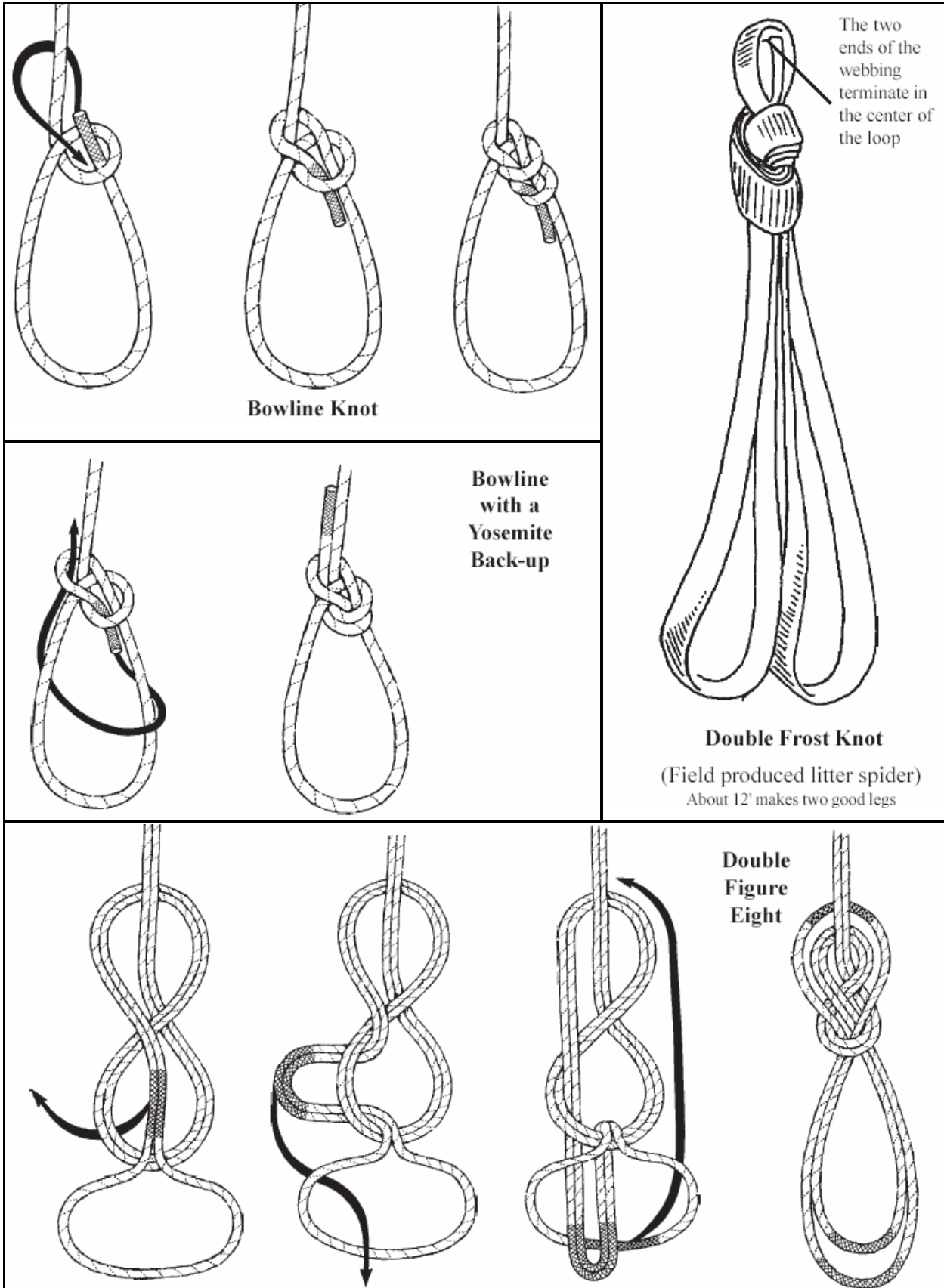
2 – 20 FT PIECES OF 1-INCH TUBULAR WEBBING

WET SUIT & PERSONAL FLOATATION DEVICE (*Required for Level 3 only*)

Knots



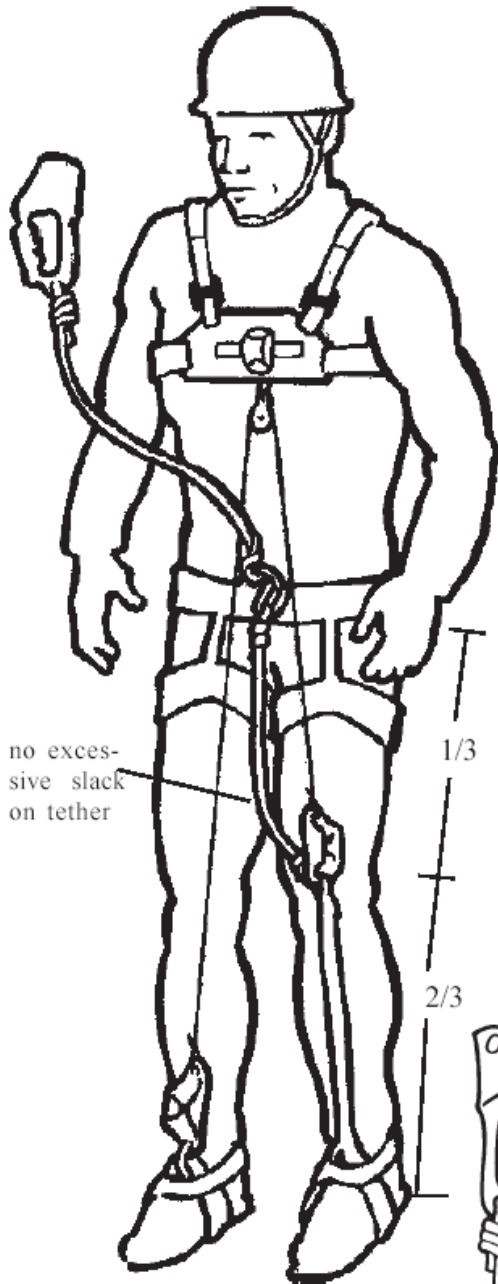




Climbing Systems

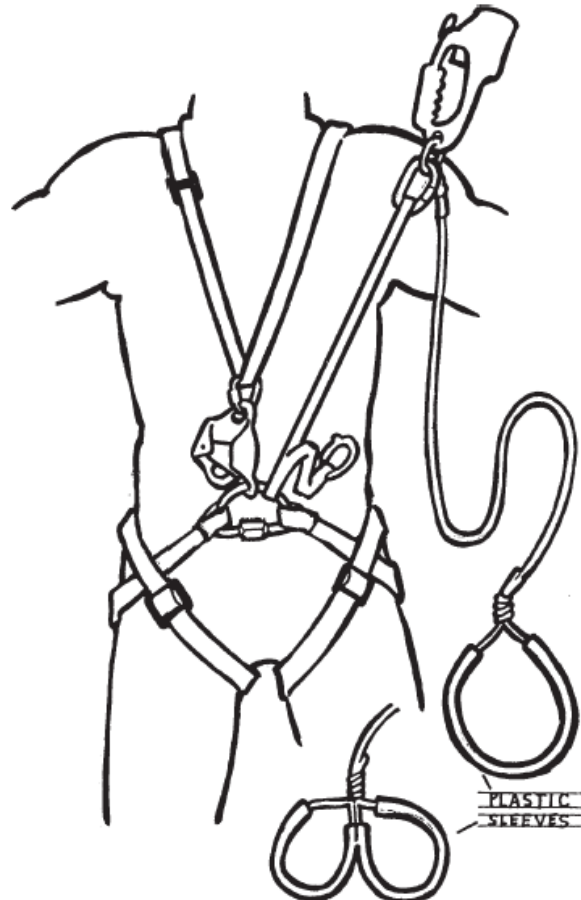
You will need to come prepared with a working climbing system. Because you are assuming the role of a rescuer you must upgrade your current climbing system to incorporate two gripping points of attachment at or above the waist. (A chest roller is not considered gripping attachment.)

There are many systems that work, there are far more that do not work. Here are depicted some of the proven systems. **If you are unsure,** make your system look like one of these.



Double Bungie Climbing System

You will need a **Quick Attachment Safety (QAS)** for numerous applications.



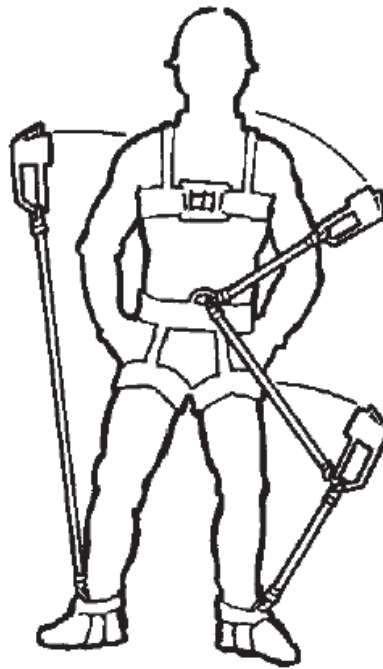
Frog System

ALTERNATIVE
FOOT LOOPS

PLASTIC
SLEEVES



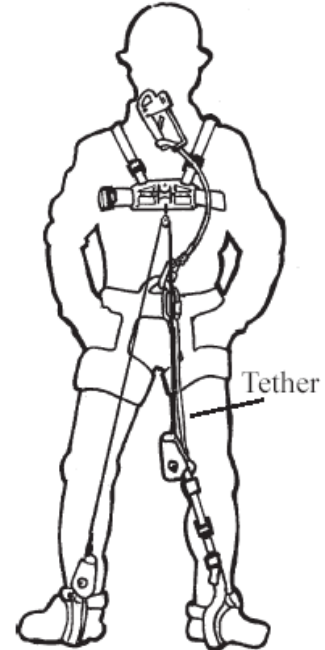
Single Bungie Ropewalker



Mitchell Climbing System



Texas Climbing System



Double Bungie Gibbs