RAPPELLING

DEFINITION

Rappel means to descend a steep slope or vertical face using a rope that is secured at the top and passed through a series of coils or a harness around the body.

TOOLS AND EQUIPMENTS

The most basic of these are climbing harnesses, climbing ropes (static or dynamic ropes), carabiners (D-shaped, Pear-shaped, eight-shaped etc., rescue eight carabiners),

❖ Climbing harness

- Is an adjustable set of straps that buckle around the waist and thighs of a climber. Most harnesses also come with special, easy-to-reach loops for attaching hardware and other climbing tools. The harness serves as an anchor for one end of the climbing rope. In the event of a fall, the anchors set in the mountainside halt the fall, and the harness holds the climber tight but does not restrict movement or breathing. A rope is also use as a seat harness.

Harness fit

- Even the most carefully designed and cushioned harness won't be comfortable if it is too big or too small, nor will it be secure. If a harness is too tight, it will restrict movement and/or pinch. A loose harness slips, chafes, and, in an inverted fall, the climber could slip out of it.

When fitting your harness wear the clothing in which you intend to climb. If this isn't convenient make sure you empty your pants pockets, remove belts, and tuck shirts or sweaters before trying on a harness.

All harnesses should sit snugly above the hip bones and be impossible to pull down. Be aggressive when trying to pull down the harness and be realistic about your waistline.

❖ **Hardwares (carabineers, ascenders, etc.)**

- An oval-shaped, pear-shaped, eight-shaped, D-shaped, spring-loaded metal link. The link attaches to a short length of nylon webbing and another carabiner, through which the climbing rope attaches. It has an openable spring-hinged side. A figure of eight, and rescue eight are also used for any rappel rescue.

Oval carabineers are the original style. Their large interior space holds lots of gear and their symmetrical curve minimizes shifting when aid climbing. They work well in improvisational situations, such as creating a carabiner-brake rappel. Two ovals in a "gates opposed" configuration can also be used as a substitute for locking carabiners. However, ovals are by design theweakestofall carabiners.

"D" shaped carabineers are very popular due to their high strength-to- weight ratio. This feature is the result of their design, which places the majority of the load onto the spine of the carabiner, its strongest part.

Asymmetrical "D" carabineers are smaller at one end than the other to reduce weight. They generally have larger gate openings, which makes clipping them easier. Many are also available with bent gates.

Bent gate carabineers have concave gates which make them the easiest to clip into, but if not used properly they can also easily unclip from the rope. The bent gate on the carabiner does not significantly affect the strength or weight of the carabiner.

PROPER USE OF CARABINERS

When a fall is caught by a rope through a carabiner, many dynamics take place that can cause "gate lash." This momentary opening of the carabiner's gate may be due to the gate's inertia overcoming