

OUTLINE OF BASIC VERTICAL ROPEWORK

- I Introduction
- II Knots- see handout
- III Rope Handling
  - A Uncoiling & Stacking
  - B Inspection & Testing
  - C Rigging
  - D Deployment
  - E Coiling
  - F Carrying
- IV Equipment
  - A Ropes & Webbing
    - 1 Materials- Nylon, Polypro, Manila
    - 2 Construction- Laid, Braided, Kernmantle, Flat Tubular
    - 3 Use & Care
      - a Problems- H<sub>2</sub>O, dirt, stress, loads...
      - b Inspection
      - c Cleaning
      - d Processing
      - e Marking
      - f Retiring
  - B Carabiners
    - 1 Materials- Aluminum, Steel
    - 2 Construction- Oval, D, Locking
    - 3 Use & Care
      - a Problems
      - b Inspection
      - c Cleaning
      - d Marking
      - e Retiring
  - C Brakebars
  - D Clothing- Helmets...
- V Safety
  - A Everybody!
  - B Hazards- People first...
  - C Inspection
  - D Procedures
- VI Signals- see handout
- VII Belaying
  - A Climbers or Rappels From Above
    - 1 Setup
    - 2 Handling
    - 3 Static & Dynamic
    - 4 Recovery
  - B Rappels From Below
    - 1 Setup
    - 2 Handling
    - 3 Recovery

OUTLINE OF BASIC VERTICAL ROPEWORK, Cont.

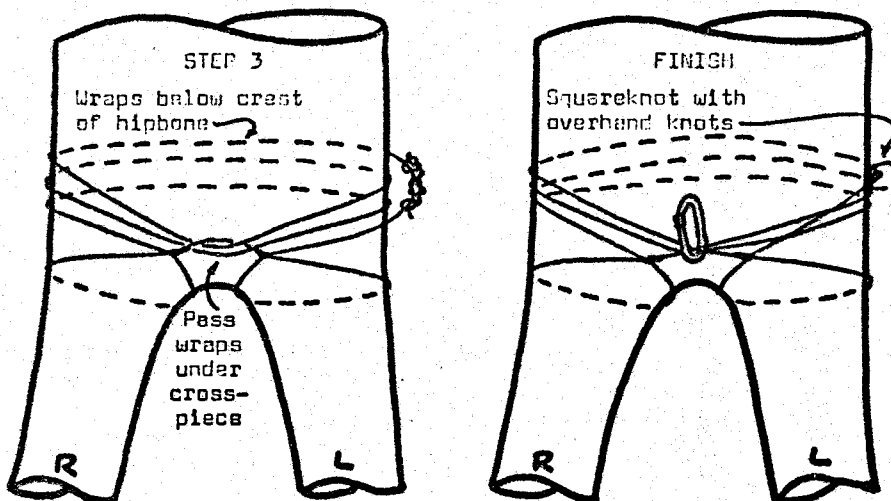
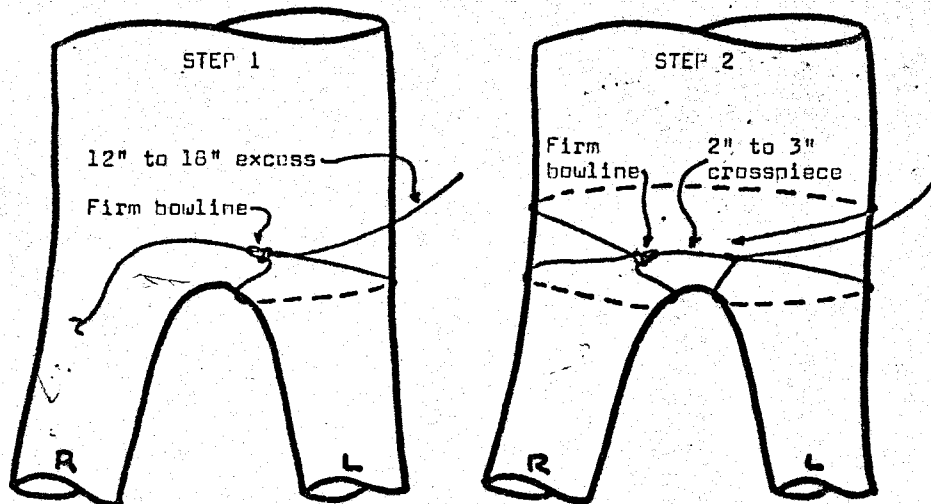
- VII Seat Harness
  - A Why
  - B Considerations
  - C Materials
  - D Tying
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- IX Prussiking
  - A Why
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  - C Rig Tying
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    - 1 Considerations
    - 2 Tying in
    - 3 Starting
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    - 5 Problems
- X Rappelling
  - A Why
  - B Types
  - C General
  - D Back Rappel
  - E Body Rappel
  - F Double-Brake-Bar Rappel
    - 1 Setup
    - 2 Starting
    - 3 Movement
    - 4 Tying off
    - 5 Hazards
- XI Examination
- XII Critique

## SEAT HARNESS

R-VR/CL (20JUL74GLH)

Semi-permanent seat harness using 1" wide tubular webbing:

- 1 Tie a firm bowline high on the left thigh with an excess of 12" to 18" on the short end.
- 2 Tie a second bowline high on the right thigh with a 2" to 3" crosspiece separating the leg loops. Hang over and rotate the loops to move the crosspiece high in front.
- 3 Wrap the remaining webbing around the hipbone, just below the crests, passing the end under the crosspiece each time. Tie the ends on the left hip with a squareknot backed up with overhand knots. Secure excess.



## SIGNALS FOR VERTICAL ROPEWORK

R-B-VR(9NOV74GLH)

- I USAGE: Anytime while in a vertical or ropework environment. All signals have a response, several of which are the reverse order. Relayed signals are repeated exactly as heard. Multiple ropes are numbered from left to right, facing the pitch, and the number is added to the signal.

## II GENERAL SIGNALS:

Signal	Response	Meaning
A Rock!		Universal warning of falling objects!
B Freeze!		Don't move!- No time to explain.
C	Clear!	Situation no longer dangerous.
D Rope!		Warning of rope toss- use twice.
E Down!		At the bottom of pitch or rope.
F Up!		At the top of pitch or rope.
G (Scream)!		Probably falling- catch with belay.

## III CLIMBING SEQUENCE

Climber	Belayer	Meaning
A On Belay?		Is my belay ready?
B Climbing!	Belay On!	Your belay is ready, go ahead.
C Slack!	Climb Away!	I am starting to climb.
D Up Rope!	Slack!	Give me more rope or less tension.
E Hold!	Rope Up!	Give me less rope or more tension.
F Tension!	Hold!	Stop movement of me and/or rope.
G Falling!	Tension!	Pull to give me support.
H Lower!	Falling!	I'm slipping and/or falling.
I Off Belay!	Lower!	Lower me on the belay.
J Off Rope!	Belay Off!	I assume my own responsibility-Thanks!
	Rope Off!	You're on your own- You're welcome!

## IV RAPPELLING SEQUENCE

Rappeller	Belayer	Meaning
A On Belay?	Belay On!	Is belay ready?/Yes, go ahead.
B On Rappel!	Rappel On!	I am starting to rappel.
C through J are the same as in climbing.		

## V PRUSIKING SEQUENCE

Prusiker	Others	Meaning
A On Rope!	Rope On!	I am attached to the rope.
B On Prusik!	Prusik On!	I am starting to prusik.
C Lower!	Lower!	Lower me on the rope.
D Off Rope!	Rope Off!	The rope is available.