

Light-weight, back-country rope rescue systems

Richard Delaney RopeLab & NSW SES



Introduction: Richard Delaney

- University qualified engineer
- Rock climbing instructor, canyoning guide, volunteer rescuer, Rope Access technician since 1992
- Vertical Rescue team leader with New South Wales State Emergency Service (NSW SES)
- RopeLab
- No commercial links to any equipment



Fall prevention for search teams

- Uniform belt with small kit bag
- No need to remove backpack or lift feet
- Add simple leg loops
- 20m of 8mm rope plus belay device
- Petzl RollClip and TibLoc for self rescue





Fit-for-task justification

- Must be easy to use
- 8mm rope?
- Strength
- Abrasion resistance
- Function of belay device
- TibLoc on 8mm rope







Personal descent system

- One size fits all full-body harness
- Helicopter lift point
- 8mm doubled rope isolated strands
- Conterra Titanium Scarab
- Petzl Shunt (variable friction and rope size)



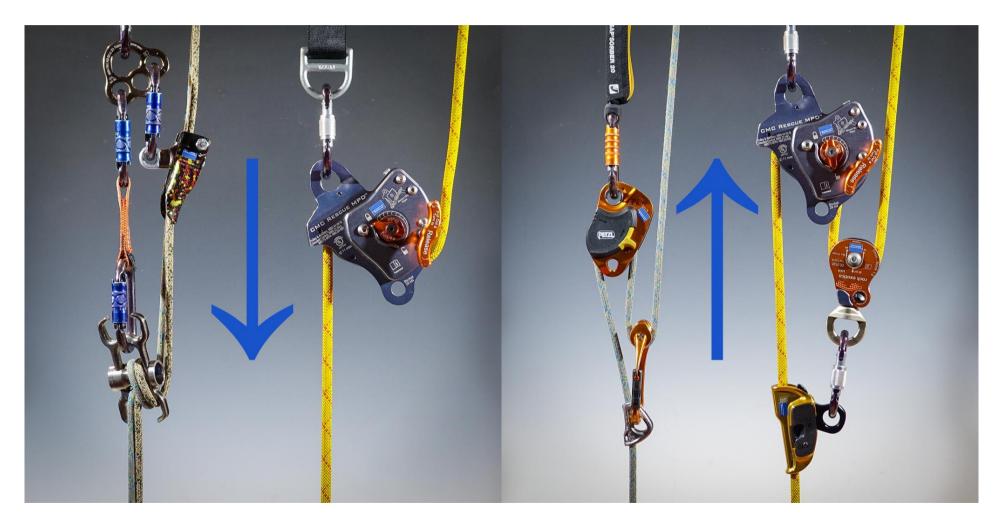


Team rescue system

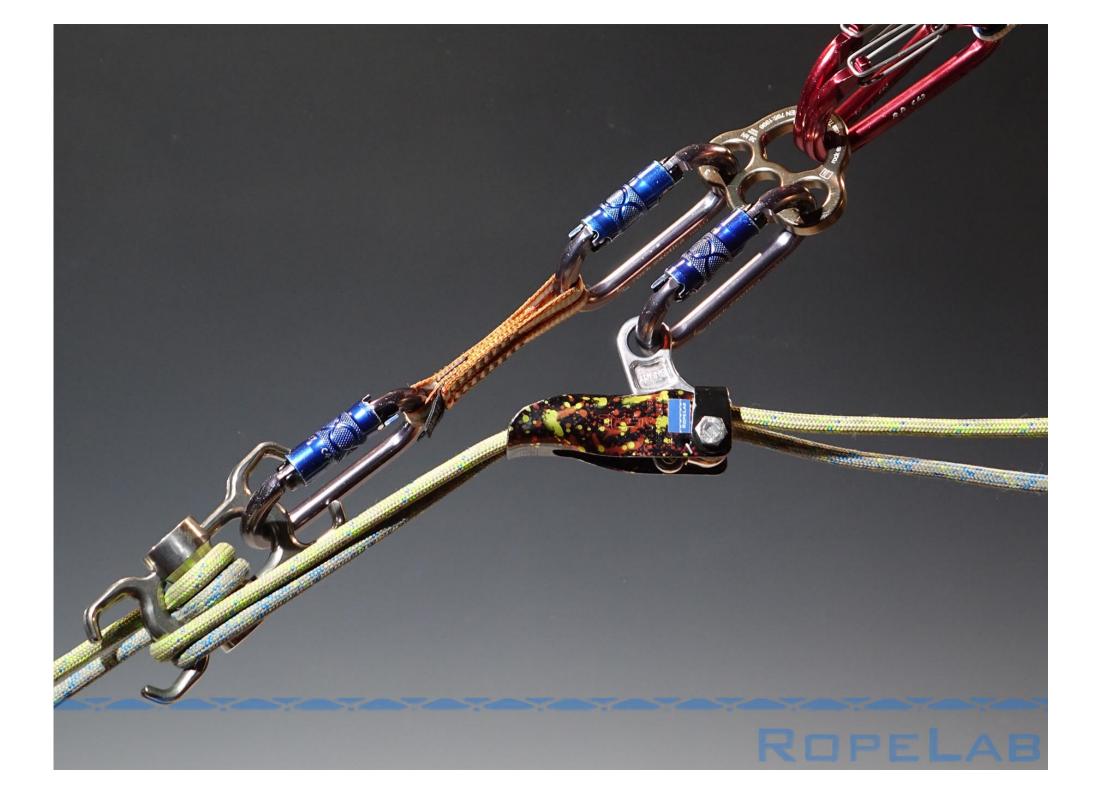
- Decide whether to raise OR lower
- Lowering system is the same as the personal descent system
- Raising system: dual 3:1 haul (Petzl ProTraxions, TibLocs, RollClips)

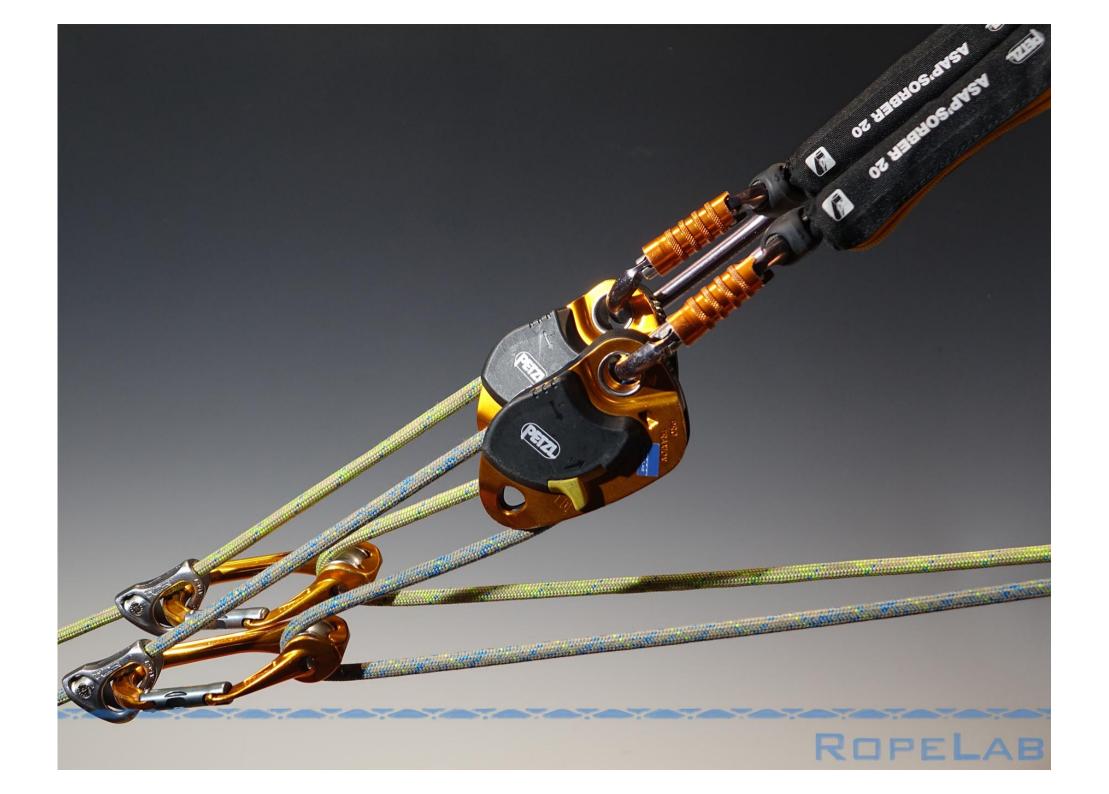


Lower OR Raise











75kg, lower & raise, 20m natural cliff



