Light-weight, back-country rope rescue systems

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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