Operational Rope Rescue

- 1 Introduction - Materials, Strengths, Terminology, Physics, and Standards
- 2 Processes
  - 2.1 Rescue Lab: Knots, Bends, and Hitches
  - 2.2 Rescue Lab: Single Point Anchors
    - 2.2.1 High Strength Tie-Off (HST)
    - 2.2.2 Bowline w/ Yosemite Finish
    - 2.2.3 Rigging Bowline
    - 2.2.4 Basket Hitch
    - 2.2.5 Wrap 2 Pull 4
    - 2.2.6 Girth Hitch (Proper Loading)
    - 2.2.7 Meat / Human
    - 2.2.8 Hasty Urban Series
  - 2.3 Rescue Lab: Progressive Capture Devices (PCD's)
    - 2.3.1 Micro-Traxion
    - 2.3.2 Pulley & VT or Standard Prusik
    - 2.3.3 TiBloc / Ropeman 2
    - 2.3.4 Totem / ATC - Guide Mode
    - 2.3.5 One-Way Munter
  - 2.4 Rescue Lab: Rope Grabs
    - 2.4.1 Ropeman 2 / TiBloc
    - 2.4.2 Micro - Traxion
    - 2.4.3 VT Prusik / Traditional Prusik
    - 2.4.4 Ascender / Jumar
    - 2.4.5 Spine Wrap (for compound/complex MA's)
- 3 Systems
  - 3.1 Descending
    - 3.1.1 Bail-Out Techniques
    - 3.1.2 PACE Descending Techniques
  - 3.2 Lowering
  - 3.3 Raising / Hauls
    - 3.3.1 Simple
    - 3.3.2 Compound
    - 3.3.3 Complex
  - 3.4 Ascending
  - 3.5 Load Transfer
    - 3.5.1 Pick-Offs
    - 3.5.2 Knot Passing
    - 3.5.3 Raise / Lower Conversions
  - 3.6 Tensioned Rope
- 4 Beyond the Basics
  - 4.1 Anchor Craft
    - 4.1.1 Contingency
    - 4.1.2 Courtesy
    - 4.1.3 Ghosting
    - 4.1.4 Multi-Point Voodoo
    - 4.1.5 Climbing Pro
    - 4.1.6 Improvised
    - 4.1.7 Rethinking Redundancy
  - 4.2 Change of Directions
  - 4.3 Artificial High Directionals (ADH)
  - 4.4 Casualty Packaging
  - 4.5 Operational Improvisation
- 5 End-State Concepts
  - 5.1 MIssion Specific Load-out
  - 5.2 Going Fast and Light - maintaining safety and efficiency
  - 5.3 Assuming Risk - Informed Decisions
  - 5.4 Defending Your Rigging
  - 5.5 Probability vs. Possibility (Gaussian Curve vs. Power Inverse Law
  - 5.6 Implementing HRO into a Rescue Program
  - 5.7 Establishing an AHJ for your Team

Job Performance Requirements JPR's - NFPA 1006 (2017)

Awareness - 5.1

- 5.1.1 Recognize the need for support resources
- 5.1.2 Recognize incident hazards and initiate isolation procedures
- 5.1.3 Recognize needed resources for a rescue incident
- 5.1.4 Initiate a discipline-specific search
- 5.1.5 Perform ground support operations for helicopter activities
- 5.1.6 Initiate triage of victims
- 5.1.7 Assists in a team operation of the haul line of a rope mechanical advantage raising system

Operations - 5.2

- 5.2.1 Perform size up a rescue incident
- 5.2.2 Inspect and maintain hazard-specific PPE
- 5.2.3 Inspect and maintain rescue equipment
- 5.2.4 Demonstrate knots, bends, and hitches
- 5.2.5 Construct a single point anchor system
- 5.2.6 Construct a multi-point anchor system
- 5.2.7 Conduct a system safety check
- 5.2.8 Place edge protection
- 5.2.9 Construct a belay system
- 5.2.10 Operate a belay system during a lower or raising operation
- 5.2.11 Belay a falling load in a high-angle environment
- 5.2.12 Construct a fixed rope system
- 5.2.13 Ascend a fixed rope in a high-angle environment
- 5.2.14 Descend a fixed rope in a high-angle environment
- 5.2.15 Demonstrate the ability to escape from a jammed or malfunctioning device during a fixed rope descent in a high-angle environment
- 5.2.16 Construct a lowering system
- 5.2.17 Direct a lowering operation in a high-angle environment
- 5.2.18 Construct a simple rope mechanical advantage system
- 5.2.19 Direct a team in the operation of a simple rope mechanical advantage system in a high angle raising operation
- 5.2.20 Construct a compound rope mechanical advantage system
- 5.2.21 Direct the operation of a compound rope mechanical advantage system in a high-angle environment
- 5.2.22 Negotiate an edge while attached to a rope rescue system during a high-angle lowering and raising operation
- 5.2.23 Access, assess, stabilize, package, and transfer victims
- 5.2.24 Direct a litter-lowering and litter-raising operation in a low-angle environment
- 5.2.25 Operate as a litter tender in a low-angle lowering or raising operation
- 5.2.26 Direct a litter-lowering or litter-raising in a high-angle environment
- 5.2.27 Terminate a technical rescue operation

Technician - 5.3

- 5.3.5 Participate as a member of a team in the construction of a rope rescue system intended to move a suspended rescue load a horizontal path
- 5.3.1 Direct a team in the operation of a rope rescue system to remove a victim stranded on or clinging to a natural or man-made feature in a high-angle environment
- 5.3.2 Direct a team in the operation of a rope rescue system to remove a victim suspended from rope or webbing in a high-angle environment
- 5.3.3 While suspended from a rope rescue system, perform the transfer and movement of a victim suspended from a rope or webbing on a high-angle environment to a separate rope rescue lowering or mechanical advantage system
- 5.3.4 Perform the activities of a litter tender in a high-angle lowering or raising operations
- 5.3.6 Direct a team in the operation of a rope system to a move a suspended rescue load along a horizontal path
- 5.3.7 Climb, ascend, descend, and traverse natural features or man-made structures that require the use of climbing aids, positioning equipment, or fall protection systems to prevent the fall or unwanted movement of the rescuer
- 5.3.8 Interact with a person at height who is in an emotional or psychological crisis