

Ftm Knots & Ropes

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By the end of this class YOU will be able to:

- (1) Identify the proper uses for different ropes in SAR operations.
- (2) Properly care for the ropes.
- (3) Identify the associated equipment.
- (4) Tie FTM knots with minimal assistance.

Ropes and stuff...

The Ropes:

Static - Can stretch slightly. Used in loaded systems.

Examples: semitech, ascend-descend

Dynamic - Can stretch more noticeably than static. Is not loaded, used for safety.

Examples: belay, climbing

Both types of rope are made with a kernmantel which has two parts:

Core - Nylon fibers

Mantle - Woven sheath

How to Use 'Em...BEWARE OF ENEMIES!!!

- (1) Avoid prolonged exposure to the *elements*.
- (2) NEVER *STEP ON THE ROPE!!!!* Why? *Particles*, that's why.
- (3) Avoid getting *chemicals* on the rope.
- (4) Protect the rope from *rocks, ledges, trees, etc.* with **rope bags, pads, etc.**
- (5) Be careful when throwing a rope bag.
- (6) Inspect the rope by feeling for any abnormalities and looking for any *fraying* of the sheath.
- (7) Ropes are stored stuffed into the rope bag.
- (8) Stack a rope to avoid *kinks*.

The Other Stuff:

Carabiner - Used to clip into rope systems. Can be steel or aluminum..

Figure eight - Used in the belay system to rappel. Can be steel or aluminum.

Rappel Rack - Same function as eight in belay system of a rappel.

Aluminum versus Steel??

NEVER drop or throw any of this equipment. Any dropped equipment must be marked with **black tape and taken **offline** (never used again). Take care of your own gear as well as ours. Make sure to tell the equipment officer if BRMRG gear gets dropped.**

The Knots:

*Note, the list of uses below is **not** all-inclusive!!!*

Square knot	Used to tie off seat harness. Basically ties together two ropes of equal size.
Water knot	Strongest knot you can tie with webbing. Used to make chest harnesses. Basically used to tie webbing together or make loops in webbing.
Figure 8	A stopper knot. Can be used to tie off the end of a rope (in rope bag).
Figure 8 bend	Figure 8 on a bite. Used to form a loop at the end of the rope to clip a biner into.
Figure 8 loop	Figure 8 follow through. Used to tie a tensionless anchor.
Double fisherman's or barrel bend	Used to tie two ropes together. Better than a square knot, but takes more rope. Use it to form a loop in perlon called a sling.
Girth hitch	Used to tie into the litter during Semitech.
Prusik	Used for camming. Used in Ascend/Descend.
Tautline hitch	A knot that allows you to adjust tension and length. Used to anchor the radio antenna mast or to tie off webbing in patient packaging.
Bowline	A knot you can tie around someone as a rescue harness. Also used in the ASRC seat harness.
ASRC Seat harness	A triple redundant seat harness. You must be able to tie this one in less than 4 minutes.

CONTOURING!!!

Now how do I tie that?

Forget what a certain knot looks like? Then check out this web page! Go to [www.brnrg.com] Click on Training. At the top of the screen there's a link that says "Knots". This is our top-notch Knots guide.

Famous last words:

What should you do now? PRACTICE, PRACTICE, PRACTICE, PRACTICE, PRACTICE, PRACTICE, PRACTICE, PRACTICE, and then take a break. But after your break, continue to PRACTICE.

Happy Tying!!! (The race is on.)