Rescue Winch Operations
Winch

A powerful machine with one or more drums on which to coil a rope, cable, or chain for a hauling or hoisting.
Definition

Rescue Winch

A machine mounted on the front or rear or both of a rescue vehicle which may become your favorite tool under the right circumstances.
• There are 452,592,138 uses for a winch.

• For Rescue
  ° Stabilization
  ° Extrication
How Is It Made

CABLE
DRUM
SHAFT

CLUTCH
GEARS
MOTOR
CONNECTOR
CONTROL
Safety

- Load Rating is 12000 pounds
- If you are even close to rating, you are doing it **WRONG**.
- How can you tell?
  - Vehicle Squats
  - Motor slows down
Safety
Where to Stand
Safety
Protection Against Whip
Forces

• The force in a cable is the same throughout its length.

• Forces will always balance or something will move
How Forces Act
Stabilization
How Forces Act
Stabilization

Blocks
Truck Placement

- Protect the Scene
- Protect the Scene
- Protect the Scene
Truck Placement

NO, ANGLE IS TOO SHARP!
Pulls

- Single Line
- Double Line
- Complex
Double Line Pull

WHY?

• **Double** the Power - Lower Forces Involved

• **Half** the Speed - Twice the Control
Complex Pull

1000 lb Pull

2000 lb Resisting Force

1000 lbs Tension

3000 lb Resisting Force
Inspect the tool you use before you use it!

Practice Safety First!