## November, 2018 Newsletter 1

## Off-Road Safety Academy

Mon 1/14/2019 5:30 PM

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## Hello Newsletter Subscribers,

Thank you for signing up to receive my training-centric newsletters. I hope you've found the previous editions informative and helpful for your vehicle-supported adventures. I trust you will enjoy this months newsletter. If you have comments, please email me: Bob.Wohlers@discoveroffroading.com.

# Determine Your Off-Road or Overlanding Adventures "Degree of Safety and Comfort"

When I travel in remote areas with other vehicles I'm more relaxed and comfortable - less on edge. The same is true when I travel a new trail for the very first time, or when I'm traveling internationally.

Over the years, as my off-road knowledge, skills, and kit has improved, my self-reliant confidence has also increased. At this point in my life, I feel I can handle most backcountry problems. I'm now more relaxed when I travel solo - without other vehicles.

All of these considerations can add to your backcountry safety and comfort. Truth be told, many parameters can add to your degree of safety and comfort as you venture off road.



Over the years, I tried to find a way to explain some of this to the students in my 4WD courses. Then it hit me. Develop a fun exercise to explain the concepts I'm trying to get across. Concepts such as use the buddy system, have the right kit with you at all times, secure the right training from a professional, study the route you want to take off road, etc. Below is a reproduction of a handout I give my beginning 4WD students. This handout simply gets them to "think" about the various parameters of safety and comfort (being relaxed) when traveling off-road in the backcountry.

## Determine Your Trip's "Degree of Safety and Comfort"

**Instructions:** Given a particular off-road adventure, if a statement in this worksheet represents your attitude, knowledge, skills, situation and/or equipment, add up the designated points. Some statements may seem slightly redundant, but they are not. Read the statement carefully. Give yourself points ONLY if your situation matches the statement EXACTLY. Give yourself points EACH time you match a statement. If you can't decide whether a statement will represent your off-road adventure or situation, don't add the points.

**Example Scoring:** Let's say you will be traveling with two other vehicles. In this case, you can give yourself 5 points since you match the statement "I will be traveling in a group with at least two other vehicles." However, don't award yourself 4 points for the statement "I will be traveling with one other vehicle."

And Now for an Important Qualifier: Points given for each statement denotes relative importance and are *very subjective*. The author determines point values. Naturally, one can argue the relative position on the list, the points given to individual statements, and even the way a statement is written. Obviously, this list can be written a million different ways. *This exercise is merely an effort to get you to focus on the relative degree of safety and comfort you might experience in the backcountry while off-roading*. Have fun with the list and learn from it.

**Higher Score** = Increased Safety and/or Increased Comfort **Lower Score** = Decreased Safety and/or Decreased Comfort

When possible try to increase your score before

venturing remotely off-road.

## **Points – Statement**

5 = I have taken a formal off-road training course that included: 1) knowledge and attitude development, 2) driving skill practice on a variety of terrains and, 3) basic recovery and survival techniques.

5 = I will be traveling in a group with at least two other vehicles.

5 = Either I, or one of the drivers I'm with has experience on this trail.

5 = I know my vehicle intimately – meaning I work on it regularly and have

- correctly added most of the upgrades on the vehicle. I have the tools and extra parts to fix most common problems in the field.
- 5 My vehicle has no dripping fluid (oil, coolant, brake, power steering, etc.), no dangling cables/wires, and no repetitive audible squeaking or ticking sounds. My vehicle drives straight down the road and steers easily and appropriately. My tires have lots of tread.
- 5 = I have a non-egotistical attitude when I drive off-road, always thinking about the safety of my passengers and myself. I drive attempting to keep my vehicle free from damage. If I see a segment of the trail I don't feel I can drive safely or comfortably, I'll turn around or find a safe work-around.
- 5 = Each time I venture off-road I take a Personal Locator Beacon (PLB), a Satellite Emergency Notification Device (SEND), or a satellite phone. (Makes: SPOT, Garmin InReach, McMurdo Fast Find, ARC ResQLink, Fast Find Ranger, SPOT Global phone, Iridium satphone.)
- 5 = I do not drink alcohol before or while I drive off-road and I don't use drugs that are contrary to safe driving.
- 4 = To the best of my knowledge, my vehicle is in perfect working order. I either regularly service it myself or have it professionally serviced based on factory service recommendations.
- 4 = I will be traveling with one other vehicle.
- 4 = I have a healthy respect for the limitations posed by remote, backcountry locations.
- 4 = I use my seat belt while driving off-road.
- 4 = I have planned out my off-road route very carefully and have not underestimated the amount of time, fuel, or supplies needed to drive at a reasonable pace to my destination.
- 4 = I have a winch on my vehicle with basic winch accessories needed for a safe recovery: 1.) Tree strap, 2.) At least 10 feet of choker chain, 3.) At least 2 properly rated anchor or soft shackles, 4.) Winching gloves, 5.) Line dampener, 6) Properly rated snatch block, 7.) Winch remote control.
- 4 = I have a loaded survival backpack (bug-out bag) and survival items in my vehicle or off-road trailer. Items must include: 1.) At least one method to disinfect water, 2.) Fire starting equipment, 3.) Temporary shelter, 4.) Basic first aid items, 5.) Compass, 6.) Warmth (space blanket, sleeping bags one per person) 7.) Knife, 8.) Signaling method (flares, whistle, rescue mirror, rescue strobe), 9.)
- Knife, 8.) Signaling method (flares, whistle, rescue mirror, rescue strobe), 9.) Flashlight, 10.) Water and food for at least three days.
- 4 = I have completed a formal wilderness first aid course and am certified.
- 4 = I carry a wilderness first aid kit in my vehicle.

- 4 = I have loaded in my vehicle or off-road trailer at least 4 to 6 liters of water per person, per day.
- 4 = I carry a complete set of mechanic's tools with me on the trail.
- 3 = I am a licensed HAM radio operator or I know how to operate the service radio given to me by my employer. I have in my vehicle instructions for my radio and repeater information for the local area I'll be traveling.
- 3 = I know how to do some minor work on my vehicle but I don't know its inner workings intimately.
- 3 = My vehicle's tires are appropriately sized for the strength of my axles.
- 3 = I have an off-road tire plug kit to repair a flat tire and I know how to use it or have practiced with it. I also have a method to re-inflate the tire (compressor, compressed gas).
- 3 = My vehicle's axle and frame clearance is appropriate for the most difficult portion of the trail.
- 3 = I tightly secure all heavy equipment in my vehicle. There are no loose items or equipment in my vehicle that could hurt me should I roll over or put my vehicle on its side.
- 3 = I have with me an extended amount of necessary/required personal medication(s).
- 3 = I know the extended weather forecast for the entire time I'm off-road.
- 3 = I carry an appropriate jack and base for lifting my vehicle on an uneven or soft terrain trail, should I need to perform work on the vehicle, or change/repair a tire. I have practiced with this jack and base on different types of terrain. (Methods may include a hydraulic, screw, scissor, or Hi-Lift jack.)
- 3 = I carry an inflatable jack in my vehicle. I have practiced lifting my vehicle with this jack.
- 3 = My vehicle has a rear axle locker.
- 3 = I know where the lowest point of my vehicle is and its approximate distance from the ground. This knowledge can help me negotiate terrain while protecting vehicle damage to that lowest component/part.
- 3 = I have had any electrical accessories added to my vehicle (lights, compressors, etc.) professionally installed or I installed them to professional standards.
- 2 = I have previously traveled on a trail similar in difficulty to the trail I'm about to travel.
- 2 = My vehicle has an electronic traction-aiding system or limited-slip differential.
- 2 = I've told at least one person (a person that cares about you) where I'm going,

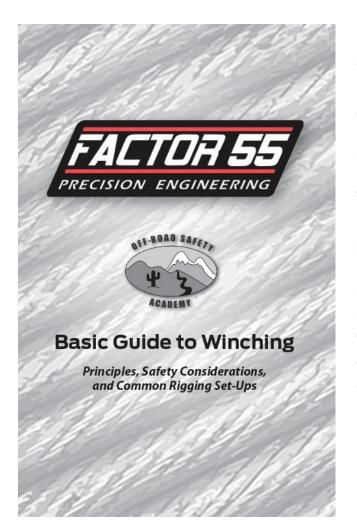
- my route and estimated time of return. (Or, I have posted my travel information on Trail Notes www.trailnote.com.)
- 2 = I have a winch on my vehicle and carry the winch remote in the vehicle.
- 2 = I carry an appropriately rated yank strap in my vehicle.
- 2 = I carry a shovel when off-roading.
- 2 = I carry a set of two or four sand ladders when off-roading.
- 2 = While off-roading, I wear long pants, a long sleeve shirt (appropriate to the climate) plus ankle high boots.
- 2 = I carry a device (such as a Pull Pal or other land anchor) that allows me to use my winch when there is no usable natural anchor point (e.g. tree, boulder, other vehicle).
- 2 = I have a GPS and know how to use it.
- 2 = I have at least two maps of the local area.
- 2 = I carry with me and know how to use a magnetic compass.
- 2 = I have a spare tire the same size/type as my other four tires.
- 2 = My vehicle has a front axle locker.
- 2 = I have in/on my vehicle some way to air up low or flat tires (on-board air compressor, 12 volt air compressor or CO2 filler bottle, etc.)
- 2 = I have the correct tools, spare parts and knowledge to repair a broken front or rear axle.
- 2 = I have the correct tools, spare parts and knowledge to replace a damaged front axle U-joint.
- 2 = I have the correct tools, spare parts and knowledge to replace a damaged drive shaft and/or U-joint.
- 2 = I have a charged cell phone in my vehicle.
- 2 = I carry in my vehicle or off-road trailer a variety of important fluids coolant, brake, motor oil, and gear oil.
- 2 = I have personal protection (hand gun, rifle, pepper spray, etc.) in my vehicle and I've taken formal training specific to its appropriate and safe use.
- 1 = I carry in my vehicle a method of welding broken metal parts or components. Plus, I know how to weld safely.
- 1 = I have a CB radio in my vehicle.
- 1 = I carry accessories for my Hi-Lift jack: 1.) Off-Road Base, 2.) Lift Mate, 3.) Bumper Lift, 4.) Off-Road Kit.
- 1 = I have personal hygiene items toilet paper, tooth paste, etc.
- 1 = I have gone trail riding at least once with a club on a trail similar in degree of difficulty.
- 1 = I have the correct tools, spare parts, and knowledge to change a damaged fan

or accessory belt(s).

1 = I have the correct tools, spare parts, fuses, and knowledge to analyze and fix minor vehicle electrical problems.

### TOTAL POINTS

# Factor 55 and Off-Road Safety Academy Team Up to Produce a Basic Guide to Winching



Factor 55 and Off-Road Safety Academy have partnered to produce a console-size basic guide to winching booklet. Released at the recent SEMA show, the guide is an instant hit.

This in-field reference will come in handy if you ever need to: 1) self-recover after getting stuck in low-traction terrain, 2) assist another stuck vehicle, 3) move an obstacle off of a trail, right a tipped-over vehicle, or 4) reduce environmental or tail damage caused by spinning wheels in low traction terrain.

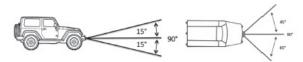
The guide is 39 pages long and packed with important winching information. The guide includes the all important STOPA - Stuck **Assessment and Recovery** Plan Checklist™ that helps you decide what recovery method to use when stuck and how to determine approximate recovery resistance values based on the GVWR of the stuck vehicle, surface resistance, and slope resistance.

The guide also outlines **Closed System Winching** for greater rigging security, strength, and safety.

#### Don't Make Your Winch Work so Hard

Besides removing as much winch line from the drum as possible, there are three other ways to keep your winch from working so hard during a recovery effort.

Set Up Straight Line Pulls. When setting up your winch rigging, avoid angled pulls. To maintain the rated line pull of your winch, the winch line should not exceed a 15-degree angle up and down from horizontal, or a 45-degree angle left or right from straight ahead.



Use Pulley Blocks. Introduce mechanical advantage in a winch-rigging set-up by using one or more pulley blocks. Mechanical advantage is "the ability to use a small force, moved through a long distance, to move a heavy resistance or object."

Remove Obstructive Terrain from Around and Under Stuck Vehicles. Another method of keeping your winch from working so hard during a recovery situation is to remove and level out obstructive terrain (gravel, mud, snow, rocks) around your tires and under your vehicle. Shovels are useful for obstructive terrain removal. Also, if your stuck vehicle is high-centered on a rock or terrain, try to remove or flatten the terrain prior to winching. You may also consider raising the vehicle off the rock or terrain prior to winching.

#### Preparing for a Winch Pull

#### NOTE

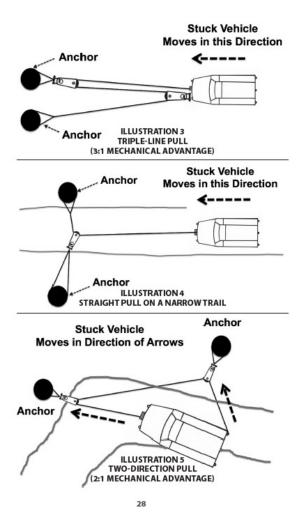
Practice these steps at home prior to using your winch in the field. Don't wait to practice under duress in the field in a real recovery situation.



#### WARNING

- Every winching situation has the potential for personal injury. To minimize that risk, read this entire guide carefully. Familiarize yourself with all the steps, warnings, and equipment cautions in this section on making a resistance pull with your winch.
- Never operate your winch when under the influence of drugs, alcohol, or incapacitating personal medication.
- Only operate this winch when over the age of 16 years old.

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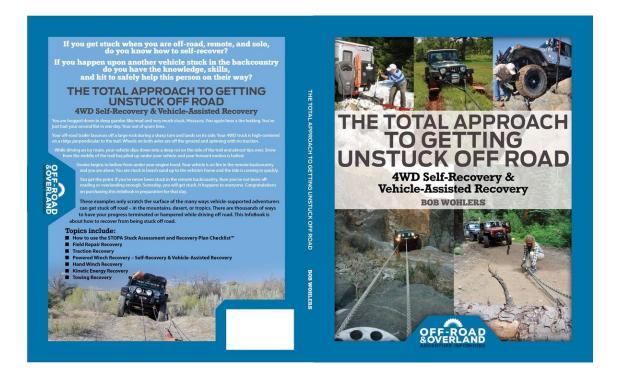


Besides listing all the necessary safety considerations when winching, the guide also illustrates 14 of the most common winch rigging setups.

Factor 55 and Off-Road Safety Academy will soon be distributing this guide to the general public. In a future newsletter you can learn how you can obtain this great little winching guidebook.

If you wish to receive a copy of this guide, email Bob from his website.

## My Third Book Is On Its Way!



My third book in the series is coming! I'm shooting all the photos now for this work. There is NO other book like this on the market, anywhere on the planet. The Total Approach to Getting Unstuck Off Road will be the MOST complete treatise on the subject ever.

### Topics will include:

- \* How to use the STOPA Stuck Assessment and Recovery Plan Checklist
- \* Field Repair Recovery
- \* Traction Recovery
- \* Powered Winch Recovery Self-Recovery & Vehicle-Assisted Recovery
- \* Hand Winch Recovery
- \* Kinetic Energy Recovery
- \* Towing Recovery

### You NEED this book!

ALSO – My December Newsletter will list all of my 2019 training events I'll be attending, plus all 4WD courses and tours. Look for this Newsletter in your email inbox soon.



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