

PEMIGEWASSET VALLEY SEARCH & RESCUE TEAM



Personal Gear List

May 2020

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Introduction

When a PVSART member is called out on a mission they are expected to arrive at the staging area with appropriate personal gear to navigate and survive in a remote wilderness environment and potentially support a patient for up to 24 hours given the expected weather and trail conditions.

This document provides a suggested list of personal gear for various types of missions that PVSART members may encounter. The items on this list are just a suggestion. You do not need to bring everything on this list on every mission and you may want to bring things that are not on this list. Whatever you decide to bring, be sure you know how to use it! Missions are no place to learn how to use a new piece of gear.

We strongly recommend keeping a cache with all of your equipment as described in the Standard Operating Guidelines so you can quickly choose what to bring on each mission.

When deciding what gear to keep in your cache and bring on each mission you should keep in mind that a search and rescue mission is very different from a recreational hike: we don't get to choose where we're going and under what conditions. This could mean hiking on icy trails, wading across cold streams, and going off-trail in deep snow. It can also mean sitting in one spot while exposed to cold, wind, and rain while treating a patient or waiting for a helicopter. Frequently it means operating after dark.

Members are responsible for the cost and maintenance of their own personal gear. Pro-deal discounts from local and online outdoor gear retailers are available to PVSART members (check the [member's site](#) for details). PVSART may be able to help replace personal gear that was damaged on a mission as described in the Standard Operating Guidelines.

PVSART will supply some specialized gear for the duration of missions. This gear must be signed out and returned at the end of each mission as described in the Standard Operating Guidelines. This gear typically includes:

- Rescue litter
- Low angle rope kit
- Portable radios
- GPS receivers
- Medical supplies (e.g. splints)
- Flagging tape for searches
- Additional clothing for the patient

Other training documents that describe the correct use of this gear are available.

3-Season Gear List

Pack

Your pack must be big enough to fit your equipment and additional team gear that you may be asked to carry on a mission, as described above.

- Backpack (We suggest 35-55 liters but you may want to go larger or smaller)
- Pack rain cover
- Dry bags (for critical gear inside your pack if you expect it to be very wet)

Clothing

Clothing is your primary defense against the elements. You should use a layering system so you can quickly add and remove articles of clothing to adjust for conditions.

You should not have any clothing made of cotton, it is not suitable for cold and wet conditions (which is always a possibility in the White Mountains). Use synthetic, wool, or down (preferably dry treated) for your layering system.

We recommend treating your shirt, pants, and hat with bug repellent such as Permethrin to help fend off mosquitos and ticks.

Depending upon the mission and weather forecast, it may be necessary to pack extra items such as socks, gloves and inner layers.

- “Normal” clothes
 - Underwear
 - Socks (bring an extra pair)
 - PVSART team shirt
 - Long pants
- Base layer
 - Long underwear tops and bottoms (based on season/temperature)
- Insulating layer
 - Warm beanie hat
 - Warm gloves
 - Fleece and/or “puffy” jacket (weight may vary by season)
- Shell layer
 - Waterproof rain jacket
 - Waterproof rain pants

- Gaiters (helpful in wet conditions and on stream crossings)

Protection

There are a few more items you may want to bring to help protect yourself from the various things that can make you uncomfortable on a mission.

- Sun
 - Brimmed hat
 - Sunglasses
 - Sunscreen
 - Lip balm
- Bugs
 - Bug spray (e.g. DEET)
 - Head net
- Brush and tree branches
 - Safety glasses
 - Well fitted work gloves
- Helicopters
 - Ear plugs
 - Goggles

Traction

Most of our missions will require thrashing through rocks and brush with heavy loads, either when searching off-trail or when forced out onto the margins of the trail while carrying a litter. This requires some sturdy footwear. “Fast and light” trail-runner style footwear increases the risk that you may roll an ankle and should be avoided.

We will also frequently be required to walk straight through streams while carrying the litter so keeping your feet as warm and dry as possible is a concern.

Icy trail conditions are possible year-round at higher elevations and are almost certain from November through May so having some additional grip is essential, even in the shoulder seasons.

- Sturdy waterproof boots that cover the ankle
- Instep crampons (e.g. Microspikes)
- Trekking poles are generally discouraged on rescues due to the risk of injury to other members, particularly when carrying the litter. Telescoping poles that can be stored safely within your pack are acceptable and may be useful during off-trail searches.

Light

PVSART frequently operates after nightfall and many of our patients are hiking with companions who didn't bring a light source. We also use various shortcut trails that are not well signed and may be difficult for newer members to find in the dark.

- Headlamp (very bright for night searches)
- Backup headlamp (inexpensive, in case you lend it out and don't get it back)
- Chemlights or LED lights (marking shortcuts; red works best for signaling helicopters)
- Spare batteries (lithium preferred)

Food and Water

You will need to support your own food and water needs for the duration of the mission. On a carryout there often won't be time to stop and treat water but during a long search this may be the only effective way to get enough water.

- Water
 - Filter, UV light, or chemical treatment
 - Hydration bladder and/or water bottles
 - Electrolyte replacements (Nuun tablets or similar)
- Food
 - Snack bars/trail mix
 - MREs (for long search days)

Navigation

If you are participating in a search you should have everything you need to navigate off-trail deep in the wilderness on your own and know how to use it to avoid becoming lost yourself. Carryouts rarely require serious navigation as our patients are usually located on a trail.

PVSART has GPS receivers that we will loan out to members when they are necessary for a mission. You can borrow these in-between missions so you can gain familiarity with them. We have training material available.

- Map (We recommend the [AMC waterproof White Mountain Trail Map set](#))
- Magnetic compass
- Altimeter (calibrate before each mission)
- GPS receiver or smartphone mapping app (dedicated GPS receiver preferred)
 - Install 24k topo maps of the White Mountains for offline use
 - Configure as described in the GPS for SAR training
 - Spare batteries (lithium preferred) or recharge pack

Communications

PVSART field officers have been issued radios and additional radios will be issued to search teams when necessary for a mission. Although cellular phones don't work in large sections of the forest they may be effective in popular areas where we routinely perform carryouts.

You may also need to write down coordinates or other information relevant to a mission.

- Cellular phone (put it in airplane mode to avoid draining batteries)
- Radio (if you've been issued one)
- Notepad (Rite-in-the-Rain makes waterproof products)
- Pen (Rite-in-the-Rain makes waterproof products)

Survival

You may need to re-warm a patient before transporting them, wait for help if you become injured, or fix some of your gear in the field.

Fire and shelter are rarely needed on a carryout mission but may be essential if you become injured or find a patient on a search deep in the wilderness.

- Fire
 - Windproof matches, fire steel, etc.
 - Firestarters (waxed cotton balls, fire bullets, etc.)
 - Knife (fixed or locking blade, non-serrated, suitable for batoning and whittling)
- Shelter
 - Tarp
 - 50' paracord
 - Emergency bivy sack or blanket
 - Large trash bag (waterproofing)
- Repair
 - 10' Duct tape
 - Safety pins
 - Zip ties, various sizes
 - 1" nylon webbing straps

First Aid

This is a personal first aid kit to take care of your own needs or support a patient with basic needs.

If you have medical training you may want to expand on this list but remember: our goal is to transport the patient to definitive medical care as quickly as possible, we should not be

performing extensive treatment in the field unless it directly contributes to keeping the patient alive and reasonably comfortable. Our treatment in the field generally consists of splinting injured extremities, re-warming patients, and providing food and water.

- Nitrile gloves (treating a patient)
- Moleskin (blisters)
- Small scissors (cutting moleskin, gauze, tape, etc.)
- Tweezers (extracting splinters, stingers, etc.)
- Band-aids of various sizes (cuts)
- Gauze bandage roll (cuts, splints)
- 36" SAM Splint (sprains, strains, and broken extremities)
- 4" Sterile dressings x4 (cuts)
- Medical tape (gauze, dressings, splints)
- Topical antibiotic e.g. Neosporin (cuts)
- Alcohol Prep pads (sterilizing)
- Aspirin (headache or suspected heart attack)
- Acetaminophen e.g. Tylenol (headache or fever)
- Ibuprofen e.g. Advil (headache or sprains/strains)
- Diphenhydramine e.g. Benadryl (allergic reactions)
- Personal medications
- Spare prescription eyewear (glasses/contacts)

Toiletries

We recommend taking care of any bathroom business before a mission but the urge may arise in the field, especially during a long day of searching. Human waste should be buried 6"-8" down and 200' from water and trails. Toilet paper should be packed out rather than buried.

- Trowel or "Wag Bags"
- Toilet paper
- Ziplocs for used toilet paper (unless using a "Wag Bag")
- Alcohol based hand sanitizer

Search Tools

There are some special tools that are required for searches.

- Loud whistle (attracting subject's attention, signaling to other searchers)
- Flagging tape (marking line searches)
- Digital camera or smartphone (taking photos of clues)
- Small tape measure (measuring footprint size or stride length)

Additional Winter Gear

The cold, ice, and heavy snow often associated with winter in the White Mountains also requires extra equipment beyond the list above:

Pack

Winter gear tends to take up more space than 3-season gear

- Large backpack (We suggest the 50-70 liter range)

Clothing

Your clothing should be upgraded to more insulated versions of your typical gear.

- Base Layer (heavier material)
- Insulating
 - Hat (heavier)
 - Fleece and/or puffy jacket (heavier)
 - Mittens (heavy)
- Shell (Replace rain shell with heavier winter shell)

Protection

Cold wind and blowing snow can quickly cause frostbite on exposed skin and blind you

- Balaclava
- Goggles

Traction

- Boots (insulated winter boots, crampon compatible)
- Snowshoes (sized appropriately for your weight plus your pack weight)
- Mountaineering crampons (compatible with your boots)
- Mountaineering ice axe

Survival

Keeping warm becomes more of a challenge in winter. You will want to have something between you and the ground if you have to stop and warm sugary liquids can help get some heat back into you or a hypothermic patient.

- Ground pad
- Stove
- Fuel
- Small pot (melting snow, heating water)
- Jello powder (rewarming hypothermic patients or rescuers)

Avalanche Terrain

You should not proceed into potential avalanche terrain unless you are carrying and have been trained with the following equipment:

- Beacon
- Probe
- Shovel