



American  
Alpine Institute

*The Spirit of Alpinism*

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## TECHNICAL ROPE RESCUE LEVEL 1 OPERATIONS AND LEVEL 2 TECHNICIAN

Bellingham, WA

### EQUIPMENT CHECKLIST

The primary goal of any alpine climber should always be to carry as little as possible. What is left out of a backpack is often just as important as what is placed inside. Conditions in the mountains vary dramatically from season-to-season and sometimes even throughout the same day. This can make the process of preparing equipment for an alpine climb difficult. On the one hand, a climber wants to be light. But on the other, a climber wants to have everything he or she needs if there is a storm.

This list was designed for the “worst case scenario” trip with significant inclement weather. In serious conditions it's not uncommon for a climber to need every piece of clothing and equipment on this list. However, if a program does not encounter significant weather, there may be items here that are not used. As you prepare for your trip, it's important to plan for the worst and hope for the best.

On the first day of your program, an AAI guide will work with you to refine your mountain kit to ensure that you bring exactly what's needed given the forecast. It is acceptable to bring too much clothing or equipment to your initial meeting. And it is acceptable to bring things that you have questions about. Extra equipment can always be left behind at the AAI shop.

The Cascade climbing season is defined as May 1st through October 1st. This list references Early, Mid, and Late-season conditions. These periods of the climbing season are roughly defined by the different types of weather and snow conditions you are likely to encounter:

- **Early-Season Conditions** (May 1st-July 1st): There is usually significant snow both on the ground as well as on the glaciers. Climbers should expect to encounter deep wet snow during the day and firm conditions at night. Overnight temperatures range from 15° to 40°F (-9-4°C). Daytime highs range from 35° to 70°F (1-21°C). Precipitation as snow or rain is likely in the early-season.
- **Mid-Season Conditions** (July 1st-September 1st): Temperatures range from 40 to 50°F (4-10°C) at night, with occasional dips down below freezing. Daytime temperatures often reach 70°F (21°C). Climbers should expect the possibility of freezing temperatures above 9000ft on summit days throughout the summer season. And though mid-season tends to be dryer in the Cascades, the possibility of rain is still always there.

- **Late-Season Conditions** (September 1st-October 1st): September is a varied month. Temperatures begin to drop both during the day and at night. Late in the month, it is possible that you will encounter an increase in snow or rain.

Please be sure to check the forecast several days prior to your course to ensure that you are properly prepared.

[NOAA Mt. Baker-Snoqualmie National Forest Weekly Forecast](#)

**PROVIDED EQUIPMENT:** Climbing rope, anchors, solid waste bags

**RENTALS:** Equipment that is available for rent through the AAI Equipment Shop is designated with a “ Rent” check box. These items may be rented on the first morning of your course during your rendezvous. It is possible to reserve rentals ahead of time but due to an extensive inventory it is not necessary. Please call the shop if you have unusual sizing issues (either large or small), as those items are limited.

Underlined items in this form are hyperlinked to examples available in our Equipment Shop. Don't forget that AAI climbers receive a 15% discount off full-price items purchased through our gear shop!

**Call or E-mail the Equipment Shop for Advice on Gear**

Please feel free to contact us and to let us help you get ready for your climbing trip. Your comfort and safety depend on being well equipped. Whether you get your gear from us or just get advice, we're here to help you prepare.

Call: (360) 671-1570 Email: [shop@AlpineInstitute.com](mailto:shop@AlpineInstitute.com)  
 Equipment Shop Website: [www.Shop.AlpineInstitute.com](http://www.Shop.AlpineInstitute.com)

<b>Clothing</b>	<b>Packing Checklist</b>
<p><b>Beanie/Toque</b>            Wool or synthetic, must fit under helmet. Easily replaced with hooded layers after early-season.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><b>Sun Hat</b>            Preferred to fit under helmet.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><b>Sunglasses</b>            Choose a model with UVA/UVB protection. Keeper strings like “Croakies” are useful to prevent dropping your glasses while climbing. Those using contact lenses should bring a pair of prescription glasses if available.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><b>Sports Bra</b>            Wool or synthetic, comfortable, active wear.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><b>Active Insulation Layer</b>            Lightweight “gridded fleece” or lightweight down or synthetic insulated jacket. Hood preferred.            ☆ Weight: 250g-350g ideal weight.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy

<p><b>Soft Shell Jacket or Windshirt</b>  A soft shell is a weather resistant, breathable, and stretchy freedom of movement piece. This piece is versatile in the sense of movement. It is often called an “action layer.” It is weather resistant, meaning it can put up with light showers and wind. Also if it gets wet it dries fairly quickly. This enables you to not have to stop and put on another piece when the wind picks up or a light shower happens. Because it is water resistant, and not waterproof, it also breathes fairly well. This enables you to move without overheating, so you don’t have to constantly stop to change out layers to regulate body temperature. They are also made of a stretchy material so there are no restrictions to your movement during activity. Put all those together and you have a pretty versatile layer, the Soft Shell. Hood preferred.  ★ Materials: Exolite, Matrix, Schoeller  ★ Windshirt: Patagonia Houdini or similar.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><b>Insulation Jacket</b>  AKA the “puffy.” Down or Synthetic. This piece is worn in cold conditions or when not moving. Hood preferred. If choosing Down, water-resistant Down treatment is preferred to help prevent matting and loss of insulating ability if the jacket gets wet.  ★ Weight: 350g-450g ideal weight.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><b>Hard Shell Jacket</b>  Non-insulated jacket with a waterproof and breathable membrane. Three layer construction is recommended. It must have a hood, ideally a helmet compatible hood. When sizing make sure it can fit over other layers.  ★ Materials: Gore-Tex, eVent, Drillite, H2NO, Pertex Shield</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><b>Undergarments</b>  Wool or synthetic.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><b>Soft Shell or Climbing Pant</b>  Thin, weather-resistant, breathable, and stretchy.  ★ Materials: Exolite, Matrix, Schoeller</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><b>Hard Shell Pant</b>  Non-insulated, waterproof and breathable membrane. Full side zips are recommended. When sizing make sure to it is able to fit over a base layer and soft shell pants.  ★ Materials: Gore-Tex, eVent, Drillite, H2NO, Pertex Shield</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><b>Socks</b>  Bringing 3-4 pairs is recommended for this 15 day course. 2 or 3 pairs mainly used while climbing that can be switched out if one gets wet. As well as having a 3rd or 4th pair as a backup.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><b>Approach Shoes</b>  These will be used for approaches and some climbing. Look for approach shoes with “sticky rubber” on them as they will climb better. Waterproof approach shoes are not recommended. Size them to be snug and comfortable.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><b>Comfortable Pants or Shorts</b>  Comfortable cotton clothing that will be used in the front country and for car camping.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><b>Climbing</b></p>	<p><b>Packing Checklist</b></p>

<p><b>Harness</b> Make sure the harness has a belay loop and gear loops. When sizing make sure it can fit over your clothing layers when you have multiple layers on.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy <input type="checkbox"/> Rent*
<p><b>Helmet</b> Must be UIAA rated for climbing.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy <input type="checkbox"/> Rent*
<p><b>Rock Shoes</b> Focus on comfort, so they can be worn all day. Avoid technical or aggressive rock shoes with a downturn. Avoid curled toes when sizing.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy <input type="checkbox"/> Rent*
<p><b>Slings</b> Bring two 24in.(60cm) pre-sewn nylon sling. Slings must be UIAA rated for climbing.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><b>Tubular Webbing</b> 1 12-foot section of tubular webbing and 1 5-foot section of tubular webbing. The 12-foot section is for a chest harness. If you have a full-strength chest harness, it may be used instead of the 12-foot section of webbing.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><b>Cordelette</b> Bring at least 21 feet of 7mm perlon/nylon climbing cord.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><b>Belay Device</b> Bring an auto-blocking device that accepts two ropes like the Petzl Reverso or Black Diamond ATC Guide.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><b>Carabiners</b> Must be UIAA rated for climbing. Bring nine total. -Four must be large, pear-shaped (or MÜNTER) locking carabiners. -Five wiregate non-locking work well for the remaining carabiners.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><b>Trekking Poles</b> One is required, but two are highly recommended. These increase balance while wearing a heavy pack and making stream crossings, while also decreasing pressure on the knees during steep descents. For the early-season, your poles should have a snow basket.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy <input type="checkbox"/> Rent*
<p><b>Purcell Prusik</b> Purcell prusiks are specific prusik cords used in rescue applications. Most people will require 32.5-feet (10 m) of 6mm prusik cord. (Precut lengths are available for sale at AAI.) We will make these in the class. They do not have to be pre-rigged.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><b>Belay Gloves</b> Lightweight and breathable glove with a durable leather palm. They protect your hands from rope burn, pinching, and sharp elements.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><b>Day Pack</b> 25L to 35L is an ideal size. This will be used during rock climbing portions and can also be used as a summit pack.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><b>Rappel Backup</b></p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy

<p>Sterling hollow block 13.5” or 4ft length of 6mm nylon accessory cord. Must be nylon, Dyneema has a lower melting point. This is used as a rappel backup, the Sterling hollow block is recommended for its heat resistant properties.</p>	
<b>Other Essentials</b>	<b>Packing Checklist</b>
<p><b>Hydration</b> 2L capacity is recommended, though some people need more and some people need less. Ensure you have enough water for each day of the course.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><b>Food</b> You are responsible to bring your own food for the duration of the course. Please consult our <a href="#">meal planning page</a>.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><b>Technical Rescue Riggers Guide</b> 3rd edition by Rick Lipke.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><b>Notebook</b> A small Right-In-The-Rain notebook and mechanical pencil work best.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><b>Headlamp</b> Bring extra batteries or if it has a rechargeable battery make sure and bring a charger. 200-350 Lumens is an ideal range.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><b>Hand Sanitizer and/or Wet Wipes</b> Required. Used after going to the bathroom and before eating. Wet wipes can be used for the “mountain shower.”</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><b>Toilet Paper</b> The provided solid waste bags have a small amount of toilet paper with them, but most people do not find this to be adequate. Estimate how much you’ll need for a program of this length and place that in a plastic zip lock bag. An extra zip lock bag can be helpful for pack-out of used paper.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><b>Sunscreen</b> SPF 30+, zinc based is preferred. Small travel size tubes are recommended so you can put them in a close by pocket for easy access.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><b>Lip Balm</b> Make sure it is SPF rated.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><b>Personal First Aid Kit</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Band aids</li> <li><input type="checkbox"/> Blister treatment</li> <li><input type="checkbox"/> Prescription drugs</li> <li><input type="checkbox"/> Ibuprofen etc.</li> <li><input type="checkbox"/> If you wear contacts make sure and have spares if you can’t see without them.</li> </ul>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><b>Repair Kit</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Inflatable sleeping pad patch kit</li> <li><input type="checkbox"/> Duct tape (Can be wrapped around trekking poles or water bottle. Gorilla Tape tends to be the best brand for the mountains.)</li> <li><input type="checkbox"/> Zip ties</li> </ul>	<input type="checkbox"/> Own <input type="checkbox"/> Buy

- 6-10ft of 3mm accessory cord
- 2 Trash bags that are big enough to line the inside of your pack with.

## Other Optional Items

The items below are not required, although many are nice “luxury” items that can make your expedition more enjoyable. Remember that a few ounces here and there add up to extra pounds on your back and knees during your expedition.

### Packing Checklist

#### **Additional Optional SAR Equipment**

If you have equipment that you would like to practice with, please bring it. During the first nine days of the program, we will determine whether we want to bring it into the mountains for the last four days.

- Own
- Buy

#### **Assisted Braking Device**

If you have a Petzl GriGri or similar assisted braking device bring it with you for front country climbing.

- Own
- Buy

#### **Gaia Navigation App**

Optional Smartphone App.

- Own
- Buy

#### **Map and Compass**

Compass must have declination adjustment.

- Own
- Buy

☆ NOTE: All three items are available together in a bundle, or all sold separately, at AAI the morning of your course.

#### **Women’s Specific Items**

##### **Female Urination Device**

Pee funnel such as the GoGirl or Freshette. Many female guides prefer a rigid pee funnel.

[Click here for more info](#)

##### **Menstruation Collection Cup**

There are many things to consider concerning backcountry menstruation.

[Click here for more info](#)

- Own
- Buy

#### **Entertainment**

Books, games, cards, music player, kindle, etc. For evenings or rainy days in the tent.

- Own
- Buy

#### **Portable Charging Device**

Phone charger, battery pack, or solar panel.

☆ NOTE: Solar panels should only be used to charge battery packs. Battery packs should be used to charge devices. Inappropriate use of a solar panel could lead to the depletion of a device’s power.

- Own
- Buy

#### **Insect Repellent**

Biting insects such as mosquitoes and blackflies can be prevalent during different times of the season depending upon conditions and location. This is a nice item to have just in case.

- Own
- Buy

#### **Camera**

- Own

<p>Phone cameras or small point-and-shoot cameras are preferred. SLR cameras are not recommended due to their size and bulk.</p>	<input type="checkbox"/> Buy
<p><b>Comfortable Clothing and Footwear</b>  Breathable footwear -- like flip-flops -- as well as some comfortable cotton clothing can be nice to change into after you get back to the van.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><b>Car Charger</b>  Consider bringing an extra battery pack as well, having a lot of people using car charger cables is difficult.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy