



Boeing Employees Alpine Society

Alpine Ice Climbing Seminar

Overview

This outing provides an introduction to technical ice climbing. Included are basic techniques for ascending and descending moderate and steep ice, placing ice protection and setting anchors.

Learning Objectives

By the end of this weekend you should be able to:

- Travel safely and efficiently on moderately steep ice using only crampons and ice axes.
- Build safe anchors in ice for belaying and rappelling.
- Evaluate your ability to safely climb ice unroped, using running belays, or using fixed belays.

What We'll Cover

Techniques for:

- Low angle ice – French Technique
- Steep ice – German Technique
- Descending – Down climbing and Rappelling
- Ice anchors
- Placing Protection
- The emphasis will be on top-roped climbing.
- As time allows, a demo of lead climbing and a station for mock leading may be presented. This is also dependent upon the experience level among the instructors.

Logistics

Location:

- Meet at [Heliotrope Ridge Trailhead](#) (North Side of Mt. Baker).
- It is about a 2.5 to 3 hour drive from Seattle.
- About 3 mile hike to lower Coleman Glacier.

Itinerary – (Saturday & Sunday)

07:45 Leave trailhead.

09:30 Reach Camp. Discussion on safety before hiking to the glacier.



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- 10:00 Practice German & French techniques for ascending and descending moderate ice.
- 11:30 Discuss and practice front-pointing, low dagger, high dagger, climbing with your axe and one tool, climbing with two tools.
- 12:00 Climb steep terrain on top rope. As time allows, discuss and practice protection and anchors: ice screw placement, building a V-thread.
- 15:30 Re-group, re-cap
- 16:00 Hike out

Preparation

Clothing:

- All the typical stuff but definitely a top & bottom shell as climbing ice can be wet.
- Gloves, mitts, and liner gloves (Try out different combinations; rubberized palms are helpful.) It's easier to climb in lighter gloves and better to belay in heavier ones. Bring several pairs as they will get wet.

Equipment List – Standard:

- Ice axe w/leash sized for ice climbing, rather than basic snow climbing or glacier travel
- Crampon-compatible leather boots or plastic boots
- Crampons
- Harness
- Sunglasses, sunscreen
- Helmet
- 1-single-rated rope per two people (if you have one)
- 3 single-length slings w/biners
- 2 double-length slings w/biners
- Cordelette
- 2 locking 'biners
- Belay device
- Parking permit (NW Forest Pass)

Equipment List – Specialized:

- V Thread Perlon (6mm) or 9/16" tubular webbing (not sewn runners)
 - 2 lengths @ 5ft, burn ends
- Ice screws (if you have them)
- Ice tools (if you have them)



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Equipment Preparation

Sharpen Tools, Crampons and Screws:

It is important to keep your tools sharp. Sharp tools bite hard ice better and create less stress fractures and shattering in brittle ice. They also help you to conserve energy. All tools should be sharpened using a hand file, grinders can overheat the metal and weaken it. Don't sharpen your tools or crampons until you know how. Improperly sharpened tools may be weakened or difficult to use.

Adjust Wrist Leashes:

Proper sizing of wrist leashes is very important for ice climbing. An improperly sized leash can render your ice axe virtually useless. Attach a long wrist leash on your standard alpine axe and ice tools so that your hand grasps the end of the shaft when fully weighted. To aid in vertical climbing, the wrist leash should be either wrapped around the shaft or be taped to the shaft just above the hand. You also need to be able to get out of your wrist loops, preferably with one hand, so that you can place screws while on lead. There are many different ways to tie a wrist leash to your ice axe. Try several methods and decide what works best for you. Some of the newer water ice tools have detachable leashes that negate the need to remove the leash from your wrist. The latest trend in water ice and mixed climbing is to use tools with radically shaped shafts and without leashes. These leashless tools have limited application in the alpine world.

Fit Crampons to Boots:

Make sure crampons fit properly before the outing. On easy terrain it can be frustrating to have crampons that keep popping off your boots. On difficult ice it could be disastrous.

- Make sure crampons stick to boots even when unattached.
- Heels should not pop out of the back of crampons.
- Toe straps should not slide off the toe of the boot.
- If using clip-on bindings make sure they fit snugly to the boot.

