

Guidance for the SIG Snow Field Trip

Scheduling

This trip can be scheduled before or after FT4. Scheduling is up to the SIGs. There has been some tendency to duplicate what is taught at FT #4 (Snow Travel - Ice Axe and Crampons). That said, SIG Leaders have flexibility to make best use of time as they choose. A significant segment of the field trip is camping in the snow and getting ready for a climb before sunrise. As with the SIG Rock FT, having a good time is a priority.

A close location option when snowpack allows is Summit West ski area at Snoqualmie Pass. Compacted snow conditions primarily due to the heavy grooming (packing) combined with a moist snowpack, offer more summer-like snow conditions than ungroomed locations. Summit West typically closes about mid March for skiing, leaving all of April for us. Close to town, groomed slopes, and room for many SIGs on the same weekend.

Please refer to Freedom of the Hills for all the skills taught at this field trip.

Curriculum

Snow Belays

Quick Belays (sitting belay or body belay, boot axe belay, and standing axe belay). A key point to explore are the limits of these quick snow belays. Not intended for high force falls, more for short slips or slides.

- The sitting body belay is a good one to focus on, being more intuitive and a very good place to start.
- The boot axe belay is particularly awkward and limiting.
- The standing axe w/sling belay potentially a little better.

With limited time you may choose to practice only one or two of these belays.

Students can test each other by pulling on the belay rope and testing the belayers stance. The goal is for students to explore the limits of an unanchored quick body belay, and also to gain some experience with snow conditions. The sitting snow belay can be fairly quick and strong especially with softer spring snow, and perhaps less so with harder snow as consolidation occurs through the season.

Snow Anchors

Adding a good snow anchor is a good way to improve belays on snow for higher force situations, and also necessary for crevasse rescue. Usually a buried ice axe or picket, but could also be something else. This is also a chance to discuss snow conditions. Snow conditions (soft, medium, hard) are a major variable when choosing how to make snow anchors.

- Horizontal placed picket or axe. Can be very strong and quick. Beware however of potential for weak horizontal layers, where a mid-clip vertical placement could be the stronger choice.
- Vertical placed picket or axe. Mid-clip is best unless the snow is very firm (firm enough to require pounding).

- Bollards. Always a fun exercise with snow conditions.

As with snow belays, have students test their snow anchors with careful pull tests.

Crevasse Rescue

Crevasse rescue as taught in the Basic climbing course consists of more steps beyond the hauling system. Please check the Curriculum on-line for details (Course materials)

Please refer to [Crevasse Rescue Guide](#) for details. Note: For the raising system, we have moved from a 3:1 Z pulley to a 2:1 drop loop method.

Roped together for glacier travel

- Preparation for pre-dawn start.
- How to divide the rope, tie-in, spacing,
- how to carry extra rope, and rescue equipment organization, etc.
- A discussion of maintaining a minimum of slack between climbers while moving together as a team. Why this is important, and some of the challenges to manage this.
- Changing direction, and crevasse navigation, etc.

Snow camping, and cooking

- Eat well, and have plenty of drinking water.
- LNT practices, including blue bags.

Observation of terrain and snow conditions as they relate to avalanche avoidance

- Identify potential terrain issues. Observation and discussion of variables that affect transformation of snow pack from winter snow (unconsolidated) to summer snow (consolidated or transformed). Temperature; including solar effect, aspect, wind, and radiant effects. How are aspect and solar effect closely related?

Ice Axe and Crampons

- An introduction to self-arrest and walking on snow.
- A chance to test out the bindings, see if they stay on, file down any overly sharp crampons, make adjustments, etc.
- It's also a nice way for everyone to warm up, prior to practicing sitting in the snow belays.