



Boeing Employees Alpine Society

ICC Snow Outing

Overview

This outing is intended to be a review of basic snow and glacier skills, but also an introduction to some more advanced techniques. It will be a strenuous, fast-paced weekend with a lot of material to cover. The class will break up into groups of 4 to 6 students for this weekend, depending on the number of instructors we have. Each group will go to a different mountain area to practice the skills listed below. We will let you know at the Monday evening class who you will be climbing with and where you will be going.

Each group is responsible for arranging its own transportation, stoves, cooking utensils, and meals. Instructors will supply any technical gear required for their group. The students will supply personal gear and ropes. Be prepared for winter conditions, as the weather this time of year is quite unpredictable. Also, be sure to have fun!

Objectives

By the end of this class session, the student will be able to:

1. Perform basic snow skills including:
 - Proper use of ice axe while ascending/descending
 - Self arrest
 - Self belay
 - Climbing in balance
 - Plunge stepping
 - Glissading
2. Travel safely and route-find on snow and glaciers in the following conditions:
 - Dangerous terrain
 - High angle snow
 - High avalanche
 - Winter
3. Place snow protection and building snow anchors using:
 - Pickets / flukes
 - Deadman
 - Bollards
4. Communicate the pros and cons of using various belay techniques in different situations, make appropriate decisions on which technique to use, and perform each technique:





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- Quick belays (boot/ice-axe, carabiner/ice-axe)
 - Anchored belays (standing and sitting hip, mechanical device)
5. Travel roped and handle the rope properly on snow and glaciers in:
 - 2-person teams
 - 3-person teams
 - 4+ person teams
 6. Use avalanche beacons and appropriate search techniques to rescue a victim.
 7. Communicate the pros and cons of various types of snow shelters, make appropriate decisions on which type to build, and build a snow shelter.
 - Snow cave
 - Ranger trench
 - Igloos
 8. Perform crevasse rescue techniques:
 - Self-rescue using Texas prusik and chest harness
 - z-pulley system
 - 2-person rope team rescue



Since we will not be on a glacier, we may substitute steep snow, moats, etc. as necessary for crevasses. Each student will practice two-man crevasse rescue.

Required Reading

Chapters on Snow Travel & Climbing, and Glacier Travel & Crevasse Rescue from “Mountaineering Freedom of the Hills”.

Special Equipment

- Cold weather bivouac gear
- Rope, harness, 3 slings (1 double), 2 locking carabiners for harness; 3 standard biners
- Belay/rappel device; prussik loops
- Glacier prussiks/ascenders, rescue pulley
- Shovel
- Avalanche transceiver
- Snow protection (picket/fluke)
- Helmet



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- Snowshoes/crampons

Logistics

Meeting places, travel, group gear, and cooking arrangements will be determined after the group is announced at the Monday classroom session.



ICC Snow Outing Skills Checklist

Route finding:

Map and compass skills _____
Route description vs. reality _____
Choosing the best route _____
Objective hazards _____
Using wands _____

Climbing Skills:

Self-arrest; feet first _____
Self-arrest; head first on belly _____
Self-arrest; head first on back _____
Self-arrest; catching others on rope team _____
Ascending steep snow _____
Self-belay _____
Plunge stepping/descending steep snow _____
Glissading; various styles _____
Considerations on different conditions _____

Anchors:

Natural anchors _____
Pickets _____
Flukes _____
Ice screws _____
Dead man _____
Bollard _____

Belays:

Hip belay _____
Boot axe belay _____
Carabiner/ice axe belay _____
Hip belay _____
Device belay _____
Choosing which belay _____

Shelters:

Tents vs. bivy vs. conditions _____
Various snow cave possibilities _____
Ranger trench _____
Igloo _____

Roped Travel:

2 man team _____
3 man team _____
4+ man team _____
Texas prusik and chest harness _____
Running belay _____

Avalanche conditions:

Watching weather reports before heading out _____
Assessing current conditions _____
Digging a snow pit _____
What to do when caught in an avalanche _____
Beacon searches _____

Ideally, what should happen in case of avalanche in more or less this order, are the following:

1. Observe victim/gear path and disappearance point.
2. Someone take charge.
3. Uphill observer stationed.
4. Packs placed in safe spot.
5. Evacuation route to safety established.
6. Survivor's beacons to receive.
7. One or more sent to find beacon.
8. Remaining grab shovels off their packs and pursue searchers.
9. Tight coordination between shovelers and searchers in final stages.

Crevasse rescue:

Self-arrest; catching others on rope team (repeat) _____
Z-pulley _____
2 person rope team rescue _____