

ACC Ottawa Guidelines - Mountaineering Leader

Scope

This document provides advice on "best practices" for ACC Ottawa amateur leaders leading Section mountaineering trips. It is intended to help leaders plan and manage club trips. These guidelines should be read in conjunction with the "[ACC Ottawa Guidelines - Introduction](#)" and "[ACC Ottawa Mountaineering Camps - Guidance for Participants](#)". For mountaineering camps, the latter document includes guidance for the role of the Camp Manager and the designated camp Climbing Leader, with duties to be split between them as mutually agreed. For shorter mountaineering trips, it provides guidance to the organizing Trip Leader.

Trips with scrambling as the core activity are covered by the [scrambling guidelines](#). Technical rock or ice climbing such as [top roping](#) and [advanced climbing](#) (including trad, sport and multi-pitch) are addressed in separate guidelines.

Introduction

Mountaineering requires a broad range of skills - hiking over rough terrain; movement on rock, snow and ice; 2nd, 3rd and 4th class scrambling; short roping; simul-climbing; technical (5th class) roped climbing; use of a mountaineering ice axe and crampons; efficient transitions between modes of travel; judgement to know which technique to apply to a given situation and when to back off; very good route finding skills.

Participant Screening

Careful screening of participants' experience, skill level and fitness is essential for a safe and harmonious camp. Rope team members should be a good fit in skill, experience, risk propensity, personality and mountaineering goals. Outings oriented towards novices should involve terrain and objectives suitable for their skill and experience level. More challenging terrain and objectives should be reserved for groups with a higher skill and experience level.

Rockfall

Rockfall is a leading cause of mountaineering accidents. At altitude, the hazard typically increases during the day as solar heating frees rocks previously secured by surface ice. Good route planning at a macro-through-micro level is important to avoid the rockfall hazard, particularly in the afternoon.

Glacier Travel

When glacier travel is involved, all members should be equipped and trained for crevasse rescue. Standard practice should be to rope up on snow covered glaciers with 4-5 climbers per rope being ideal and 3 the minimum.

Seracs are particularly dangerous to mountaineers as they may topple with little warning. The only mitigation is to avoid heavily seraced routes or to traverse the danger as quickly as possible with some spacing between group members.

Avalanche Safety

While avalanches are mainly a concern in winter, they are also a threat in other seasons. Traditionally, summer mountaineering parties seldom carried avalanche rescue gear. In this case, the primary strategy must be avalanche avoidance. This requires proficiency in terrain assessment and route planning. Leaders should seek advice from park safety wardens and guides regarding avalanche hazards in the areas of concern and adjust travel plans accordingly.

The Association of Canadian Mountain Guides now advocates for a significant change in [best practices for travel in avalanche terrain](#). The ACMG now promotes use of avalanche safety gear for waterfall ice climbing as well as for summer mountaineering, when avalanche hazard may be present. It is wise to consider carrying avalanche rescue gear and only leave it behind as part of a conscious decision making process, not simply because you aren't skiing in January. Destinations where this should be a consideration for ACC Ottawa mountaineering Trip Leaders include the Rockies and the Presidential mountains of NH, amongst others.

Mountaineering Judgment

Leaders and participants should display good judgement and teamwork. If conditions are unfavourable to summit, do not hesitate to retreat. The mountain will be there another day. Remember - *There are old climbers and bold climbers but no old, bold climbers.*

In general, mountain weather deteriorates in the afternoon. An alpine start is therefore advisable with the aim of summiting by noon and returning to camp by mid-afternoon.

Emergencies and Self-Reliance

Several factors characterize these trips: objective climbing hazards (exposure, rock or ice fall), sudden and severe alpine weather changes, lightning, high elevation, high altitude gain/loss per day and rough alpine terrain remote from quick outside assistance. Consequently, both leader and participants should be fit and self-reliant to the point of being able to bivouac over night in the alpine with minimal gear due to weather, accident or slow progress. Mountaineers should have training and equipment to perform basic climbing self-rescue in high angle terrain.

Communications

Some form of external emergency communications is highly advisable. With few exceptions, cell phones do not work in the alpine backcountry. The Trip Leader should consider alternatives such as a Sat Phone, VHF transceiver or SPOT message device. Each has pros and cons. FRS/GMRS radios can be useful for short range (~2-3 km) contact between climbing teams.

First Aid Qualification

Either the Trip Leader or an Assistant Trip Leader should be "[AWFA-qualified](#)". For mountaineering camps, it would be prudent to ensure that some trip participants are also AWFA-qualified.

Guidelines for Mountaineering Trip Leaders

- 1) prepare for a mountaineering trip:
 - a) after in-depth research, select an area, terrain, potential routes and hut or camp site; this should include a Plan A (good conditions) and Plans B or C (poor conditions)
 - b) monitor weather and trip reports from the targeted area, starting well in advance of the trip and maintaining awareness up to the departure date
 - c) prepare and publish a trip notice in conjunction with the Mountaineering Coordinator, clearly defining the level of trip difficulty, group size limit and participant fitness, skill, experience and equipment requirements
 - d) carefully screen trip participants, offering constructive suggestions for alternatives to those who do not possess the necessary fitness, skill, experience or equipment
 - e) advise participants on gear, clothing and supplies appropriate for the trip:
 - i) essential personal and climbing equipment (specify)
 - ii) a headlamp, layered clothing and a personal micro-first aid kit
 - iii) ensure adequate water and high energy food and snacks for the trail
 - f) consider appropriate group safety gear: combination snow/wood saw, group first aid kit, tarp, insulated pad, small pot, small stove, fire starter kit, spare batteries, spare sun glasses
 - g) advise participants regarding pre-trip training and acclimatization
 - h) organize trip logistics such as transportation, hut bookings, meals, etc. as appropriate
 - i) research emergency contacts for the area, communication options and conceptualize how an accident would be handled
 - j) ensure all participants read and sign the trip waiver prior to the trip; pass the signed waiver to the Mountaineering Coordinator at the earliest opportunity
- 2) knowledgeable and skilled in:
 - a) skilled alpine navigator with map and compass in all types of weather and terrain, including whiteout conditions above treeline

- b) bushcraft skills: improvise an emergency shelter both above and below treeline; light a fire under adverse conditions
 - c) knowledgeable about clothing layering options for efficient backcountry travel
 - d) minimizing sun exposure
 - e) preventing, recognizing and treating hypothermia
 - f) understanding the acclimatization process
 - g) recognizing and treating altitude sickness
 - h) monitoring and interpreting alpine weather signs
 - i) mountaineering route finding skills
 - j) efficient rope handling skills
 - k) proficiency in climbing and descending steep rock, ice and snow
 - l) glacier travel skills, including crevasse rescue (if applicable to the trip)
 - m) avalanche safety training, minimum of AST 1 (if applicable to the trip)
 - n) recognizing and dealing with alpine hazards: changing weather (sun, rain, snow, wind, lightning); avalanche risk; rock and ice fall; objective fall exposure; altitude sickness
 - o) level-headed, calm and resourceful in an emergency
- 3) supervise trip safety:
- a) delegate tasks to assistant trip leaders and engage other experienced participants
 - b) double-check items of participant gear and supplies considered critical to the trip
 - c) brief participants on trip-specific safety hazards and safety procedures
 - d) the default practice for travel on non-dry glaciers is to rope up
 - e) be cautious with potential avalanche slopes
 - f) set a turnaround time
 - g) maintain situational awareness with respect to terrain, weather, location, speed of travel, time of day, participant energy level and frame of mind, etc. and be ready to change plans, if appropriate
 - h) good judgment to make tough, perhaps unpopular, safety-related decisions
 - i) understand the club Emergency Response Protocol and take charge in an emergency

Useful References

1. "Alpine Skills: Summer", Petzl Foundation and Alpine Club of Canada, 2013.
2. "Mountaineering: The Freedom of the Hills", The Mountaineers, Seattle, 8th Ed., 2010.
3. "Technical Handbook for Professional Mountain Guides", Association of Canadian Mountain Guides (ACMG) and American Mountain Guides Association (AMGA), 1999.
4. "Playing It Safe", Ed. Murray Toft, Alpine Club of Canada, 1998.
5. [ACMG Mountain Condition Reports \(MCRs\)](#)
6. "Backcountry Avalanche Awareness", Bruce Jamieson, 8th Ed., Canadian Avalanche Assoc.