ACC Ottawa Guidelines - Top Rope Climbing Leader

Scope
This document covers top rope climbing on both rock and ice. It provides advice on "best practices" for ACC Ottawa amateur leaders leading Section top rope climbing trips. It is intended to help leaders plan and manage club trips. It should be read in conjunction with the "ACC Ottawa Guidelines - Introduction". Advanced climbing (including trad, sport and multi-pitch), scrambling and mountaineering are described in separate guidelines.

Introduction
Top rope climbing trips tend to attract less-experienced participants. This constrains choices of climbing sites and routes. It also means that extra supervisory precautions and a conservative approach on safety-related matters are particularly important. These are excellent occasions for a Trip Leader to mentor aspiring climbing trip leaders and gain their assistance and to help new climbers who can find all the practices involved in safe climbing a bit overwhelming.

Climber Experience Levels
Climbers are classified into the following groups according to experience level.
1) Beginner (Newbie) - little to no experience
2) Novice (Gym Climber) - mainly climbing gym experience; less than one year of outdoor climbing experience; knows how to tie in and belay properly, but this should be verified
3) Intermediate (Top Rope Climber and/or Sport Climber) - one year or more of outdoor top rope climbing experience; may or may not sport lead; can safely set and remove top anchors; can rappel safely; knows basic self-rescue
4) Advanced - (Trad Leader and Second) - can place and remove trad gear; can make gear anchors; knows basic partner rescue techniques; can trad climb single pitch or multi-pitch

The Trip Leader's assessment will determine the level participants can operate at. The Trip Leader may authorize, at his or her discretion, experienced climbers to undertake more advanced climbing on a non-interfering and self-reliant basis i.e. undertaking single pitch trad climbing on a top rope climbing trip advertised as "beginner-friendly". At the same time, the leader may request climbers to refrain from activities that the leader is not comfortable with or that would interfere with the intended scope of the trip.

Leader/Participant Ratio
A "supervising climber" means the Trip Leader or a designated experienced climber. Trip Leaders may, of course, apply a higher level of supervision at their discretion.
1) Beginners - one supervising climber per two active ropes
2) Novices - one supervising climber per four active ropes
3) Intermediate and Advanced - verification of correct procedures at the start of the session, followed by periodic oversight

**Top Rope Anchors**
Unlike trad anchors, top rope anchors are normally "unsupervised" for long periods once set up. Beginner and novice climbers may not be sufficiently knowledgeable to inspect anchors when topping out. Therefore, Trip Leaders should take particular care in setting up and periodically re-inspecting top anchors to ensure nothing has shifted or come loose. Safe techniques should be used for approaching the cliff edge - for example, by using a long dynamic tether with a sliding Prusik. The following anchor guidelines apply to Section top rope climbing trips.

Only strong natural anchors or fixed bolts should be used for top roping. When slinging trees, leaders should be careful to respect local rules to prevent tree damage. Gear-only anchors should not be used. Rock or ice pro may be used to back-up the main anchor or as directionals, if necessary. Two or more solid anchor points of the following types are recommended:
1) large (diameter ≥ 25 cm) live, healthy, stable, well-rooted tree (where permitted)
2) massive, stable boulder (carefully check stability; requires very long webbing)
3) modern rock bolt and hanger in good condition; avoid old 1/4", loose or rusty bolts

One **very** large (diameter ≥ 50 cm) live, healthy, stable, well-rooted tree (where permitted) is also suitable, using redundant slings and carabiners.

Each anchor point should be attached by a locking carabiner to webbing or a cordelette in good condition (not aged, frayed or worn) which is tied off in a master point with two locking carabiners. The climbing rope should pass through the two locking carabiners at the master point which should be locked and opposed with gates oriented downward and away from the rock. The master point should extend over the cliff edge to minimize wear on the climbing rope. If the cliff edge is sharp, the anchor extension should be padded. All anchor components must be certified by an internationally-recognized standards body e.g. UIAA or CE. Overall, the aim is for anchors to be solid, redundant, equalized and minimally-extending.

**Belaying**
1) It is advisable that beginner and novice belayers have a back-up belayer at all times i.e. another person holding the rope behind the primary belayer. The back-up belayer can be another beginner or novice, with suitable guidance.
2) The standard belay device is a Grigri or ATC or similar plate/tube style device in good condition. The Munter hitch, figure-8’s or obsolete devices should not be used for top rope belaying on trips involving beginners or novices.

3) Ground anchors are strongly advised for beginner and novice belayers, in areas with objective hazards (such as drop offs), or when there is a risk of the belayer being jerked forward and losing control of the belay, such as when there is significant weight differential between climber and belayer, or when the belay has to be established a distance away from the climb to avoid rock or ice fall.

**Rappelling**

1) Top rope climbers should normally be lowered off by their belayer.

2) Only leaders or experienced climbers (intermediate and above) should rappel on their own; for example, after setting an anchor or when cleaning a route.

3) A back-up Prusik should be used. It is recommended that the rappel device be extended from the harness a readily-accessible distance such that the back-up Prusik (connected to the harness and tied below the rappel device) cannot compromise the rappel device.

**Supervision of the Climbing Site**

1) Leaders are responsible for the entire group. Activity supervision and participant welfare come first. The Trip Leader's personal climbing agenda comes last, if at all.

2) Anchors will be constructed by the Trip Leader or designated experienced climber(s) and, preferably, double-checked by a second experienced climber.

3) Club policy is that helmets will always be worn in the vicinity of the climbing site and other areas deemed hazardous by the Trip Leader (e.g. a difficult approach trail). Areas where helmets may be safely removed, if any, should be designated by the Trip Leader in advance so that all participants are clear on helmet use (e.g. a safe lunch area).

4) Beginner and novice belayers should be supervised at all times. While belaying, they should be in the line of sight of and readily accessible by an experienced supervising climber.

5) Because newer climbers often learn by copying the practices they see more experienced climbers use, the Trip Leader and any assistants should be careful to model only conservative "best practices" in front of beginners and novices. Consistent use of standard techniques and practices by Club leaders will reduce confusion for beginners and novices and help them 'learn the ropes' more effectively.

**Ice Climbing**

1) For ice climbing trips with beginners or novices, temperatures below -15C are inadvisable. For trips for more experienced climbers, it is at the Trip Leader's discretion.

2) Following periods of thaw, ice climbing trips are inadvisable until there is a solid refreeze.
3) Grigri belay devices are inadvisable in winter as they may ice up and malfunction.
4) It is recommended that climbers and belayers wear eye protection.
5) Leaders are advised to establish belay stations away from potential ice fall zones, if possible.

First Aid Qualification
Either the Trip Leader or an Assistant Trip Leader should be "AWFA-qualified".

Guidelines for Top Rope Climbing Trip Leaders
1) prepare for a top rope climbing trip:
   a) select a climbing site and routes suitable for the target group of climbers
   b) prepare and publish a trip notice in conjunction with the Climbing Coordinator
   c) apply ACC Ottawa guidelines for leader/participant ratio (see above)
   d) advise participants on gear, clothing and supplies appropriate for the trip:
      i) basic climbing equipment: helmet, harness, belay device and locking carabiner,
         climbing shoes, chalk bag
      ii) a headlamp, appropriate clothing and personal micro-first aid kit
      iii) adequate water and high energy food and snacks for the day
   e) screen trip participants, offering constructive suggestions for alternatives to those who
do not possess the necessary skills or experience
   f) assemble appropriate club gear (ropes, anchor kits, helmets, harnesses, first aid kit) and
      arrange for its transportation to the climbing site and return after the trip
   g) determine what group safety gear is appropriate (group first aid kit, tarp, insulated pad)
   h) organize event logistics such as meeting time and place, transportation,
      accommodation, meals, etc.
   i) make a note of emergency contacts for the climbing site, communication options and
      conceptualize how an accident would be handled
   j) monitor weather forecasts and prepare a "Plan B", in case of unsuitable conditions
   k) ensure all participants read and sign the trip waiver prior to the trip; pass the signed
      waiver to the Climbing Coordinator at the earliest opportunity
2) as required, instruct and supervise beginner and novice climbers in:
   a) rules for wearing helmets at a climbing site
   b) the importance of minimizing rock or ice fall, and warning those nearby if it does occur
   c) proper use and adjustment of a climbing harness
   d) tying into the climbing rope
   e) protocol for climber-belayers safety cross-check before climbing
   f) proper belaying technique (ATC and Grigri style devices)
   g) use of a backup belay
h) lowering a climbing partner  
i) proper climber-belayer communication
3) supervise a top rope climbing site, with emphasis on safety:  
   a) safely set up and take down strong, safe and secure top anchors and ground anchors (as described above)  
   b) delegate tasks to assistant trip leaders and engage other experienced climbers  
   c) check the climbing gear of beginners and novices (including helmet, harness, belay device and locking biner) for suitability and condition  
   d) brief participants on site-specific safety hazards and safety procedures  
   e) oversee and mentor participants on safe climbing and belay practices  
   f) maintain situational awareness with respect to route availability, time of day, weather, participant energy level and attitude, etc. and be ready to change plans if appropriate  
   g) good judgement to make tough, perhaps unpopular, safety-related decisions  
   h) understand the club Emergency Response Protocol and take charge in an emergency
4) be knowledgeable and skilled in basic top rope climbing rescues:  
   a) can handle a jammed belay device, damaged rope, jammed rope, compromised top anchor, trapped or injured climber  
   b) can take over a belay  
   c) can escape a belay and tie-off a climber; also do the same for another belayer