

Classes of Climbing/Rappelling Practices and Procedures:

Required: The *Climbing/Rappelling National Standards* are required for all council and district climbing/rappelling activities. The points of *Climb on Safely*, No. 20-099B are required for all unit climbing/rappelling activities.

Recommended: *Topping Out*, No 32007, contains recommended practices and procedures for both council/district and unit climbing/rappelling activities. These have been determined to have a high degree of safety and are commonly used.

Prohibited: A few climbing/rappelling practices and procedures are prohibited because they have been determined not to be safe; they are described in the *Climbing/Rappelling National Standards, Climb On Safely, and Topping Out*.

Acceptable: Because there is such a variety of climbing/rappelling practices and procedures, some are simply acceptable – not required, recommended, or prohibited. Just because a practice is not described in *Topping Out* does not necessarily mean that it is not acceptable. The council's climbing committee chairperson should be consulted regarding climbing/rappelling practices and procedures that may be questionable.

M1. Course Security

A climbing/rappelling facility on BSA property must be monitored or secured to prevent unauthorized use (disabled to a height of at least 12 feet or otherwise disabled). Warning signs must be posted at designated climbing/rappelling sites. Climbing and rappelling must be done with qualified supervision.

M2. Natural Sites

Climbing or rappelling at natural sites must be done on stable rock that is suitable for climbing and rappelling. Climbing and rappelling sites have been reviewed and approved by a climbing director. The climbing area has a designated place for onlookers that is outside the safety zone.

M3. ACCT Standards .

Constructed facilities must meet the standards of ACCT (Association for Challenge Course Technology; **P. O. Box 47, Deerfield, IL, 60015-0047; phone 847-325-5860; fax 847-325-5864; Web site <http://www.ACCTinfo.org>** ; annual membership includes ACCT standards) for belay cables and terminations, ground anchors, guy cables, and poles, as well as state and local laws. Portable climbing/rappelling structures must be securely anchored and/or guyed, including mobile climbing facilities. Follow the manufacturer's recommendations for using portable and mobile facilities, including automatic belay systems. Climbing/rappelling structures must not have protruding hardware, such as screws.

M4. Engineering inspection

Each climbing/rappelling structure must be inspected by a structural engineer, challenge course builder who is a member of ACCT (Association for Challenge Course Technology), or a professional challenge course builder before initial use, within the last four years, and after any severe stress such as high winds or lightning. A written document is available and has been signed by the structural engineer or ACCT challenge course builder indicating that in his or her opinion the facility is structurally suitable for its intended purpose. (This standard will become mandatory in 2005.)

M5. Distractions

The climbing/rappelling site is free of distraction from other program areas and from potential hazards such as dead snags, power lines, insects, vehicular traffic, and other identifiable hazards that could endanger climbers, belayers, rappellers, or onlookers. A well planned, well-established trail system enables participants to walk safely to and from the climbing site.

M6. Varied routes

The climbing/rappelling site or facility has climbing routes that vary in difficulty to accommodate participants with different skill levels.

See "Topping out:

A BSA Climbing/Rappelling Manual", No, 32007

M7. Environmental protection

A written policy is in place to protect a natural site from environmental degradation. Participants are knowledgeable in Leave No Trace as it applies to climbing/rappelling sites.

M8. Climbing Director/Instructor

A BSA trained climbing director, or a BSA trained instructor who is at least 21 years of age (lead instructor), must supervise the climbing/rappelling site. A climbing director need not be present during climbing or rappelling activities, provided that an instructor who is at least 21 years of age (lead instructor) is present at the site. Each BSA climbing instructor has evidence of active instruction in climbing/rappelling at least once within the past year. See "Topping Out: A BSA Climbing/Rappelling Manual", No, 32007.

Climbing director or lead instructor: _____

Date of certification of training: _____ Age: _____

Each BSA local council that operates a climbing program must have a currently trained climbing director to give overall supervision to the council's climbing program.

M9. Director/Instructor number and ratio

A minimum of two climbing directors or instructors must supervise any climbing/rappelling activity and be present during construction, operation, and dismantling of portable structures. Each climbing director or instructor supervises no more than six participants, including adult leaders, in climbing or rappelling. The instructors must never leave participants unattended.

M10. Natural sites

Natural sites for climbing/rappelling on BSA property must be inspected twice a year by a climbing director.

M11. Close calls

Close calls (incidents that do not result in injury, but which reveal a potential safety problem), accidents, or injuries that occur during climbing/rappelling activities must be documented by the staff and periodically reviewed by the climbing director, camp director, climbing committee, and council health and safety and/or risk management committee.

M12. Maintenance checklist

A site-specific written maintenance checklist is used for all biannual (twice a year) inspection of facilities and equipment. A copy of this checklist should be kept with the climbing/rappelling records, the ranger's records, and the council's records.

M13. Disabilities

When possible, the program is made available to young people with disabilities. These participants are accompanied by adult leaders who are sensitive to the needs of youths with disabilities and familiar with the conditions and ability of the particular individuals. There is an appropriate ratio of instructors to participants with disabilities. See the appendix of Topping Out: A BSA Climbing/Rappelling Manual, No 32007.

M14. COS training

An opportunity is provided for adult leaders to receive training in Climb on Safely.

M15. Outside utilization

Other organizations or groups are permitted to use the camp climbing/rappelling site or facility only with a hold-harmless agreement, facility use agreement, and certificate of liability insurance in the amount of \$1 million. When the council operates the program, camp climbing equipment or approved personal equipment must be used. When an outside organization operates the program, it must provide its own equipment and instructors.

M16. Climbing Director

The climbing director must be at least 21 years of age, must be a currently registered member of the Boy Scouts of America, and must have successfully completed the climbing section of BSA national camping school within the last five seasons. Evidence of continuing, active instruction in climbing/rappelling at least once in the last year is available to the inspector. A project COPE director may supervise a climbing tower.

M17. Climbing Instructors

Climbing instructors are at least 18 years of age and are currently registered members of the Boy Scouts of America and hold a current certificate (within two years) of completion of training as a BSA climbing instructor. A written instructor training plan, approved by the climbing director, has been developed.

M18. Instructors-in-Training

All climbing instructors-in-training (IITs) are at least 16 years of age, must be currently registered members of the BSA and have received training in climbing, rappelling, belaying, and spotting by a climbing director or instructor. When IITs assist participants, they must have been trained and supervised by a climbing director or instructor at the site where they are being used. A climbing instructor may also train and supervise climbing IITs.

M19. First Aid training

At least one climbing staff member or one or more persons at the climbing/rappelling site must be currently trained in American Red Cross Standard First Aid (a 6.5 hour course that includes CPR), or level 1 National Safety Council First Aid, or the equivalent from another nationally recognized or regionally recognized organization, and must be physically present in the immediate area whenever climbing or rappelling is done. In addition, if climbing/rappelling is done outside of resident camp, Wilderness First Aid Basic (a 16-hour course) or the American Red Cross Emergency Response (a 43.5 hour course) is also recommended.

M20. Anchors

All anchors must be fail-proof or backed up and the load distributed.

M21. Bolts

Bolts must be a minimum of 3/8-inch steel and suitable for climbing. UIAA-approved (International Union of Alpinists Association) or CE-approved (Community European Norm) hangers must be installed. Installation of climbing bolts on BSA property must have council approval. The length of bolts is appropriate for the type of rock; 2.5 inches is the minimum. Pitons are never used in BSA climbing

M22. Trees

Well-rooted, healthy trees or other living anchors may be used as anchor points in the anchor system. Trees must be at least six inches in diameter at the point of attachment. If used, a living anchor must be protected from damage.

M23. Belay anchors

Anchor systems must have a strength of at least 22.2 kiloNewtons (5,000 pounds). (Webbing may be doubled to meet this standard.) Each belay anchor is placed to provide the most effective protection for both the climber and the belayer. The belayer's position allows for no slack between the belayer and the anchor point and is kept in direct line with a potential fall.

M24. Anchor records

A written record is available indicating that anchor bolts and hangers on council property have been installed by a qualified individual who has training and/or experience in installing climbing bolts and have been checked at least twice annually by the climbing director.

M25. Helmets

A UIAA- or CE- approved climbing helmet or a helmet that meets ASTM standards must be worn during all BSA climbing/rappelling activities where the participants feet are more than their should height above ground level. Each individual in the safety zone of a climbing or rappelling site must also wear an approved rock climbing helmet, and each rappeller must wear appropriate gloves.

All climbing helmets must be retired according to the manufacturer's recommendations or no more than seven years from the date of purchase, or sooner if conditions warrant it.

M26. Ropes

All ropes used for climbing must be kernmantle and must be UIAA- or CE-approved. All static ropes used for rappelling must have a tensile strength (breaking strength) rating of at least 22.2 kiloNewtons (5,000 lbs.) when new. A diameter of 7/16inch or 11 millimeters is recommended for static rappelling ropes; every climbing rope must have a minimum diameter of 10.5 millimeters. All ropes and nylon webbing must be new when procured. Webbing must be designed for climbing and must have a minimum breaking strength of 15.6 kiloNewtons (3,500 pounds) when new.

M27. Logs & Marking

A written log of the history of each rope used in the program must be kept, indicating (1) the date the rope was purchased, (2) the number and type of participant uses and any unusual impacts, and(3) any environmental or severe stresses that were placed on the rope. Each rope must be uniquely marked and permanently identified. All webbing must be marked with the date of purchase.

All climbing ropes

and webbing must be retired after the fourth year, regardless of use. If a rope or webbing shows signs of excessive wear or abuse, it must be retired immediately. It is recommended that the same rope always be used for the same application to learn what its life span is.

M28. Specialized equipment

All items of specialized equipment (carabiners, helmets, belay and rappel devices, webbing, rope, etc.) needed for conducting a safe program are available for the participants. Personal climbing/rappelling helmets, harnesses, and shoes must meet climbing equipment standards and be inspected and approved by the on-site director or lead instructor before use. Personal climbing/rappelling ropes, hardware and webbing are not allowed.

M29. Harness

A properly sized commercial climbing harness or a tied harness made from at least one-inch-wide webbing is required on all belayed activities. In addition, a chest harness or full-body harness must be used for participants whose body shape could allow them to slip out of a seat harness if inverted. Harnesses must be inspected before each use and retired when damaged or excessively worn.

All climbing harnesses must be retired according to the manufacturer's recommendations or no more than seven years from the date of purchase, or sooner if conditions warrant it.

M30. Rappel/Belay device

An appropriate, commercially produced belay device attached with a locking carabiner is used for belaying. An appropriate, commercially made rappel device attached with a locking carabiner is used for rappelling. Brake bars on carabiners racks are prohibited. If rappel or brake racks are used, the climbing director and instructors must have the knowledge and experience to use them in a safe manner.

M31. Equipment storage

Equipment must be kept in locked, protective storage when not being used, away from exposure to heat, sunlight, or chemicals.

M32. Equipment inspection

Climbing directors and instructors regularly inspect climbing/rappelling equipment and are taught how to inspect equipment for defects that render the equipment unsafe for usage. Retired equipment is disposed of in such a way that it cannot be retrieved.

M33. Written inventory

Written equipment records are kept that include a complete and current inventory, a record of date of purchase, issue and check-in; and a record of maintenance of facilities.

M34. Age appropriate

Climbing/rappelling equipment and activities must be age appropriate and geared to the skill level of the participants. Age-appropriate equipment and instruction is provided. See the climb on safely training outline, no. 20-101A, or Age-Appropriate Guidelines, No. 18-260

M35. Participant preparation

Personal objects that could lead to injuries are removed before participants or staff members engage in climbing/rappelling activities. Long hair must be tied up and/or tucked

M36. Challenge by Choice

No one is ever coerced or pressured into attempting any activity. A participant may be encouraged to take the next small step, but the final choice of participation and performance is left entirely up to the individual.

M37. Warm up

Several warm-up activities are conducted at the beginning of each program session.

M38. Orientation

A site and safety orientation is conducted for participants by an instructor or director before the climbing/rappelling activity. A written checklist is used to ensure that all points are covered during the orientation.

M39. Safe spotting

The technique of safe spotting is explained, demonstrated, and practiced before participants are permitted to engage in any activity requiring that skill.

M40. Belaying

The techniques of proper belaying and use of signals and equipment are explained, demonstrated, and practiced under safe conditions before participants are permitted to engage in climbing or rappelling. Participants are thoroughly trained in the proper use of specialized equipment such as a commercial or tied-seat harness, carabiners, belay and rappel devices, and climbing ropes before using them.

M41. Participant safety

The on-site climbing director or lead instructor determines if the safety of the participant might be compromised by conditions, staffing, weather, or any other factor, and is empowered to open or close the climbing program.

M42. Site rules and procedures

Written site-specific rules and safety procedures are known and used by the climbing staff. See the BSA Topping Out, No. 32007.

M43. Top roping and belaying

All climbing participants are top roped. All rappelling participants are belayed. All participants rappelling on a single rope are belayed with an independent line.

M44. Belay requirements

Participants must be belayed or anchored when climbing higher than shoulder height above the ground or in an elevated area where a fall could occur. Any time a belay is changed procedures are in effect to ensure that a new belay or safety

line is secured to the participant before a previous one is removed. Spotting must be in effect for climbers up to a height of 6 feet.

M45. Knot checks

Procedures are in effect to check and double-check participants' knots, carabiners, and harnesses before each use.

M46. Bouldering

Each participant is spotted with extreme care by a minimum of two spotters when bouldering. A boulderer's feet must go no higher than his or her shoulder height.

M47. Medical screening

The climbing director or lead instructor consults the camp health officer or reviews participant's medical forms, interviews leaders or participants about areas of concern, and shares pertinent medical information about participants with instructors before allowing participants to engage in climbing/rappelling activities. Non-Scout participants must provide a copy of the medical information/informed consent form in the appendix of Topping Out: AS BSA Climbing/Rappelling Manual, No. 32007

M48. Daily visual check

The climbing director and/or instructor, using a written checklist, must make a daily visual check of the facilities and equipment, including hardware, rope, and anchor points. Hazards identified during this inspection must be corrected before the activity is undertaken.

M49. Written emergency plans

Written, site-specific plans identifying possible emergencies and procedures for resolving them are reviewed with climbing staff members. Written, site-specific plans for emergency evacuation from climbing/rappelling sites are developed, and procedures are rehearsed annually by climbing staff members

M50. Electronic communication

A reliable means of electronic emergency communication is on-site during climbing/rappelling activities. In addition, a reliable backup emergency communication system is in place. This could be a runner if the distance to help or other more reliable method of communication is reasonable

M51. First Aid kit

Medical supplies appropriate for likely climbing injuries are available at the climbing site. Medical supplies must be accessible to staff members when climbing/rappelling takes place.

M52. Rescue equipment

Equipment appropriate for rescue is available at the climbing/rappelling site when an activity is being conducted. It is used only for rescue and is color-coded or otherwise designated so that it can be distinguished from standard equipment used in the program.