

Mecklenburg County Council

COPE & Climbing

Speed Climbing SOP

Overview

The purpose of this document is to set a standard means for rigging and facilitating speed climbing with an initial focus on the Belk Scout Camp tower although the principles in this document apply with some minor differences to MSR's climbing facilities.

Speed climbing is intended for advanced climbers. This is not an element or activity for new or inexperienced climbers. While there is no age limit, the instructor should use his/her judgement as to the experience level of the scouts. The target participant group should meet the following:

- Older Scouts BSA or Venture scouts,
- have climbed before,
- have demonstrated proficiency in climbing technique (i.e. able to climb other routes on the tower)

BSA NCAP standards require that all scouts are top rope belayed when climbing (PS-206-C-6). The towers at Belk and MSR are both designed with life safety systems above the climbing walls to facilitate a top rope anchor with a slingshot belay in which the belayer stands on the ground. All climbers must be on a top rope belay when participating in a speed climb.

As this activity is an extension of a top rope climb, much of these operating procedures are borrowed from the Top Rope Climbing SOP. All applicable Top Rope Climbing procedures must be followed during a speed climb.

Equipment

The following lists the equipment needed to rig the speed climb as detailed below in this document. Note that this equipment is in addition to the equipment normally needed to rig a top rope climb. For a list of that equipment refer to the MCC COPE & Climbing – Top Rope Climbing (Tower) Operating Procedures document.

- Belk
 - 4 oval screw gate locking steel carabiners
 - 1 rigging plate such as the Petzl Paw (small – three holes)
 - 1 single sheave pulley
 - 1 accessory cord (7mm x 15' minimum)
 - 1 Petzl ASAP Mobile Fall Arrestor

Staffing the Speed Climb

Given the unusual nature of the climbing element, the staffing requirements are different than for a regular top rope climb.

Lead Instructor

The lead instructor for the event must be trained in rigging for this element and must understand the particular nature of the knots and devices used including how to release the rigging when it is under tension.

Belay Team

The belay team must be instructed on the particulars of a walking belay. This is not a standard belay technique taught in the instructor training classes. See notes below on the Walking Belay.

Supervising Instructor

A trained instructor should be positioned at the anchor pole with the redirection rigging. This instructor has several key responsibilities during the facilitation of this element:

- Ensure clear communication between the climber and belay team
- Monitor the redirection rigging for smooth operation
- Release the MMO and ASAP device if it engages

The supervising instructor may be, but does not have to be, the lead instructor for the event. However, the supervising instructor must be trained in the particulars of facilitating this element.

Timing Staff

If this is a timed element as part of a Camporee or other such event, the trained instructors outlined above are not to be involved in timing the element. They must be focused on the safe facilitation of the element. Additional staff provided by the event should be managing the timing of the climb.

Opening the Tower for the Speed Climb

The tower should be opened, inspected, and rigged as usual for a top rope climbing session.

Care should be taken to find the tightest fitting removable climbing holds. It is expected that due to the nature of this speed climbing element, the removable holds are more likely to be dislodged and knocked off by the climber. Tighter fitting holds will make a better experience for the climber.

Rigging for the Speed Climb

Rig the Climber's End of the Rope

For this element, the climber will tie in to the top rope using a figure 8 follow through knot. Leave the climbing end of the top rope loose with no knot tied.

Rig the Belay End of the Rope

The belay end of the climbing rope will be redirected away from the tower using a pulley. This will enable the belay team to walk away from the tower, pulling in the slack as they walk backward. This belay technique will allow the belay team to keep up with even the fastest of climbers.



This picture shows the complete rigging at the belay end of the rope where it is redirected away from the tower using a pulley.

The webbing around the anchor pole will need to be shortened so that it is only about waist high. This can be done either by lengthening the legs of the water knot (retying the water knot) or by tying an overhand knot in the webbing, creating a low clip in point. The latter method may allow more flexibility to untie and retie the knot to get the length and thus the height of the clip in point correct.

Clip the rigging plate into the webbing and then clip the pulley to the center hole of the rigging plate. The tope rope should pass through the pulley such that it is redirected from the top of the tower, down through the pulley and directly away from the tower.

Clip another carabiner to the rigging plate, using the hole closest to the tower.

Attach the Petzl ASAP device to the rope above the pulley. The device should be positioned only about 12 inches above the pulley. Make sure to capture the climbing rope in the device using the designated hole at the top of the device. (Refer to the manufacturer's documentation for correct use of the ASAP device.)

To this capture carabiner on the ASAP device, clip the accessory cord using a figure 8 on a bight knot.

Tie the working end of the accessory cord to the carabiner on the front of the rigging plate using a Munter-Mule-Overhand (MMO) releasable knot. The MMO should be tied as close to the ASAP device as possible. Any tail left over after tying the MMO should be neatly coiled so that it will stay out of the way and not drag on the ground.



Closeup of the complete rigging.

At the belay end of the rope (away from the tower) the standard belay device will be attached to the rope and clipped to the belayer with the back up belayer standing behind the main belayer.

For events with many observers, a safe walking corridor behind the anchor poles should be marked with caution tape. The corridor should be at least as wide as the two poles at the Belk tower and should extend at least 40 feet away from the poles and the tower. This is necessary to minimize the chance of observers interfering with the walking belay team.

Facilitating the Speed Climb

As with all top rope climbing there are certain steps that must always be followed. These are detailed below.

- CHECK
- Tie in to the Climb Rope
- Climbing Commands
- Climb On!

CHECK

Before beginning any climbing session, the trained instructors must go through CHECK.

The first step is to CHECK the overall rigging, the climber, and the belay team.

Once facilitating a climbing session each participant must be CHECK'ed. A trained climbing staff member must check the harness and helmet of the climber every time the climber approaches the route. The harness and helmet of the belayers should be checked as well. Participants will often take off their harness or loosen it between climbs. Never assume that a harness or helmet is OK. Check every time.

Tie in to the Climbing Rope

The climber must tie in using a figure 8 follow through knot. The knot must be checked by the trained instructor.

If a harness other than a program harness is in use, the manufacturer's recommendation must be followed for the tie in point(s) on the harness.

Climbing Commands

The climber must exchange the climbing commands with the belay team before the climber may ascend the route. With the increased distance between the climber and the belay team, especially as the climber ascends the tower and the belay team walks backward, the supervising instructor may need to relay commands between the climber and belay team.

Ask the climber to face the belayer. This aids in hearing the climber issue commands but also allows the belayer an additional check of the climber. A good technique is to have the climber put his/her back against the start of the route.

On Belay

The climber asks the top rope belayer "On Belay?" The belayer must:

- Check that he/she is properly clipped in to the belay device and the webbing.
- The top rope backup belayer must be in position
- Visually check the climbing area and belay corridor. No one out of place, belay stance is clear, etc.
- Pull excessive slack out of the rope.
- Supervising instructor checks the ASAP device that it is moving freely on the rope.

The belayer now responds “Belay On.” The belayer may make a sentence out of each command response. For example, “Timmy, the belay is on.”

Climbing and the Walking Belay

The climber issues the command “Climbing.” The belay team responds “Climb On.” The climber may now turn, face the route, and begin to climb.

As the climber begins his/her ascent, the belay team begins to walk backward. There is no need to pull slack through the belay device using a method such as PBUS or Chop. Simply walk backward to pull the slack on the rope through the redirection pulley.

While the climber is ascending, the supervising instructor should be looking out for safety concerns. These might include but are not limited to the following:

- No excessive slack in the system – the belay team is able to keep up with the climber
- The top rope should remain between the climber’s arms
- Climber should face the route
- There are no obstructions in the belay corridor

At no point should the climber ascend beyond the anchor at the top of the route.

Lowering

Once ready to come down, the climber issues the command “lower” to the belayers. Both belayers on the belay team begin to walk slowly forward. This will lower the climber to the ground without any rope moving through the belay device.

The supervising instructor should monitor the ASAP device. As long as the belay team walks forward slowly the device should not engage but should allow the rope to move smoothly through the device.

Off Belay

Once the climber is safely on the ground the belayers may release the belay. Often the climber is not aware or forgets to issue the “Off Belay” command. Once off belay the belayers may relax the hold on the rope, unclip from the belay device and ready himself/herself for the next climber.

The climber may untie from the rope. The top rope should be left hanging with no knot tied in the end of the rope.

Between Climbers/Sessions

In between climbers or climbing sessions, the top rope belay device should remain rigged on the top rope and webbing. Do not pull tension on the rope – the climber’s end of the rope could be pulled up out of reach. The top rope belay hardware can be rested on the ground tarp.

The supervising instructor should check the redirection rigging and the ASAP device.

Disengaging the ASAP Device

If there is excessive slack in the system, such as may occur if the climber ascends the tower faster than the belay team can walk backward or if the belay team were to trip, stumble or fall to the ground, the ASAP device may engage and grab the rope. This will make it impossible for the climber to be lowered until the ASAP device is disengaged. To do this, the tension on the device must be released.

Before the ASAP device is disengaged, the belay team must be in place and ready to hold the climber. Any obstructions in the belay corridor must be cleared. The supervising instructor must communicate with the belay team and ensure they are ready to be “On Belay”.

The supervising instructor will then take the following steps to release tension on the ASAP device and disengage it from the climbing rope.

1. Untie the MMO
2. Slowly allow the tension on the climbing rope to transfer to the belay team
3. The ASAP device may travel a small distance up toward the tower away from the rigging plate
4. The ASAP device must be pushed up along the rope (toward the top of the tower). This disengages the ASAP’s grabbing mechanism. This may only be done when the ASAP can be moved freely and is not supporting the weight of the climber.

Once the ASAP device has been disengaged and moves freely on the rope, the belay team should resume walking forward to lower the climber.

If the ASAP device and MMO are not tied off, the climber should not be allowed to ascend the tower. Lower the climber to the ground and take the time to reset the MMO and ASAP device before climbing resumes.

Closing the Tower

The tower should be closed following the usual standard procedures for each camp.