TEN TOBOGGAN REMINDERS

*The **10 Toboggan Reminders** review the NSP Central Division Practices & Procedures for the safe operation of toboggans. Please review this page before teaching patrollers.*

1. **Inspect the toboggan** for loose or missing parts. Check all attachment points, nuts, bolts, and tail rope conditions (especially on older toboggan models where the tail rope or carry ropes might pull through the body), handles, handle locks, fins, patient straps, chain, and chain brake release.

2. **Fanny Packs and/or Backpacks must not be worn while in the lead position**.

3. **Approach: Handles Unlocked** The most efficient, safest, and most direct route should be taken to get to the accident scene. The basic-level approach would include a combination of a wedge, parallel skiing, sideslip, or falling leaf for the alpine/tele and sideslip for snowboarders. The approach for senior-level would mainly be a skiing (parallel) approach with sideslip or falling leaf. Snowboarders should also ride/sideslip to the scene. The goal is minimal toboggan movement across the fall line. Stop uphill and to the side of the patient and ask how the toboggan should be positioned. When beginning the final approach, if backing the toboggan in, create a "J," sideslipping backward to pull the toboggan across the fall line away from the patient. Use that inertia to slide the toboggan forward and below the patient. The Central Division believes that all patrollers should be taught to position a toboggan for patient pickup without locking a handle. Tipping the toboggan onto the downhill fin will make it easier to position. In deep snow, it is permissible for a skier to lock one handle so that the toboggan doesn't become a shovel. This is a notable exception.

4. **Loading a Patient:** The toboggan must be anchored when loading the patient. Anchoring can be achieved by having a patroller hold the toboggan with the handles locked, dropping the chain under the bow and pushing the handles into the snow, placing skis or poles through carry ropes, using slide arrest anchors that are built into newer toboggans, securing the tail rope to a fixed object or having a patroller hold the tail rope. The anchor may be removed once the lead has operational control of the toboggan (with handles locked). Communication is key for safety.

5. **Lead Operator: Position in the handles:** As a skilled OET operator, you will find the benefits of working all areas inside or outside of the handles. The critical understanding is how positioning in the handles benefits or hinders the mechanics of your performance. An athletic stance permits optimal route selection, pace, control, and braking. Patrollers should be careful using the crossbar while in the handles on steep slopes, as pushing against the crossbar (backward, up the hill) can reduce friction for the nose of the toboggan and chain and take you out of balance. An athletic stance allows greater control to apply downward *pressure* on the handles, creating more friction. The lead operator's responsibilities include selecting a route that is smooth and continuous in pace, maintaining the stability of the toboggan, providing primary braking, patient monitoring, and communication with the tail person. A secondary brake must be used for the patroller, patient, and public safety. This can be a tail rope or readily deployable chain brake. While the sideslip is our primary method of transporting a toboggan downhill, it is sometimes necessary to transition to the opposite side. Performing a quality pivot slip with simultaneous edge change should be the goal of all alpine and telel patrollers. Snowboards should use torsional flex to pivot the board.

6. **The Chain Brake** is always available for you. Its use is at the discretion of the operator. Feathering the chain can make your ability to run the toboggan more efficient. Use your position in the handles and your legs to manipulate chain pressure.

7. **Deployable Chain Release:** When operating a loaded toboggan alone, the chain brake must be in a deployable position (off the handle stop and usually held in or in front of the hand) so that the chain will activate if the operator loses contact with the handles. When running as a team, depending on the conditions, the operators' skill, or the occupant's size, having the chain in a deployable position can be advisable. In the event that the lead position falls, the chain deploying automatically can assist the tail person in gaining control of the toboggan. The main goal is always the safety of the patient, the public, and the team.

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8. **Tail Rope:**
Role: The role of the Tail Rope operator is to monitor the patient, observe uphill traffic, provide secondary braking and support when the toboggan is not in the fall line, and communicate with the lead.

Positioning: The tail rope operator should be positioned above the rear of the toboggan in the fall line. Keeping a functional tension on the rope helps control the toboggan. If the lead performs a direction change down the fall line, the skiing tail operator waits until the lead has completed their maneuver and is stable before completing the movement. Snowboarders will remain on their heel sideslip and should never perform a transition when on the tail rope. When traversing across the hill, the Tail Rope Operator should maintain control and position themselves above and slightly behind the rear of the toboggan.

Rope Handling: The tail rope should be held with both hands in front of the body at the waist to mid-thigh level (center of mass). Keeping the hands in front of the body assists with maintaining pressure on the downhill ski or edge of the board. The downhill hand, closest to the toboggan, controls the functional tension of the tail rope. Tensioning is done by managing the appropriate length of rope by gathering and releasing. This maintains functional tension to assist the Lead Operator. A maximum of one coil of rope is recommended in the hands. The other hand loosely holds the looped end of the tail rope.

9. **Traversing the Hill:** Extreme care must be taken when traversing the hill due to the length of the toboggan, the pitch of the slope, and visibility to the public. Watch for uphill traffic and communicate with the tail operator. To limit toboggan slipping, pressure the downhill handle to engage the downhill fin better. When making a direction change, there are two methods.

Type 1: The lead operator will do an edge set to begin the traverse across the hill, pressuring the downhill handle. The tail rope operator should position the tail rope in the fall line above and slightly behind the rear of the toboggan. Once a point is reached on the other side, the lead operator will prepare for the transition. The lead operator will release the edge set and start the sideslip to position the toboggan and the tail rope in the fall line. Falling leaf and edging skills can be used to maneuver the toboggan into the fall line. Once the toboggan and tail rope are in the fall line, the lead operator will transition and continue the sideslip, holding the sideslip until the tail rope operator completes their transition and enters a stable sideslip position.

Type 2: This variation allows for a quick direction change for the team. The transition occurs during the traverse prior to the toboggan entering the fall line. The lead operator will do an edge set to begin the traverse across the hill,, pressing down on the **downhill** handle. The tail rope operator should position the tail rope in the fall line above and slightly behind the rear of the toboggan. To prepare for the direction change, the lead operator will transition while the toboggan is in the traverse and prior to entering the fall line. The Lead operator will then sideslip down the fall line in a stable sideslip position. The falling leaf and edging skills can be used to maneuver the toboggan into the fall line. Once the toboggan and tail rope are in the fall line, the tail operator will transition and continue the sideslip, holding the sideslip until the tail rope operator completes their transition and enters a stable sideslip position.

10. **Completing a Run:** The most efficient path and technique should be used to transport the toboggan to the final location. A basic-level patroller may use a combination of wedge or power wedge. In contrast, the more advanced or senior-level patroller "skis" the toboggan, performing short turns with little to no effect on the track of the toboggan. On flat terrain, it may also be helpful to have the tail operator come alongside the lead, helping to pull the toboggan. Lifting the handles will reduce friction, assisting with the toboggan sliding on shallow terrain.