

Let's Do The 'Twist' When Handling Toboggans

BY RICHARD EVERETT

A skier has been injured and you've been called to bring the toboggan to the incident scene. You quickly take hold of the handles and begin pulling the unloaded toboggan down the hill, but mere seconds into your descent you feel the weight behind you pick up that inevitable swing with each turn, completely wrecking your skiing rhythm. At one point, the toboggan swings so wide it actually threatens to come around in front of you.

You slow down to get things back on track, *then* pick up your speed again, mindful of the need to get to the incident scene *now*. Before you know it, your toboggan's a swinger once more, leaving a telltale track outside the arc of your tracks (figure 1). How do you get rid of that confounded fishtailing effect? What works for me is a very simple movement that involves adding a little "twist" to the turn.

One of the reasons the toboggan tends to swing wide of the ski track is that the operator rotates his/her upper body to make the turn. The upper body faces the same direction as the skis, translating to an absence of the ever-important upper-lower body separation. Also, the operator may try to keep the toboggan level to the horizon, which puts only the uphill fin in the snow, rather than parallel with the slope, which keeps both fins in the snow. If you run the toboggan on the downhill fin and the toboggan washes out, it will go flat to the snow and continue tracking with both fins on the snow. Conversely, if the uphill fin is level to the horizon and the toboggan washes out, it will come around, threatening to get in front of you.

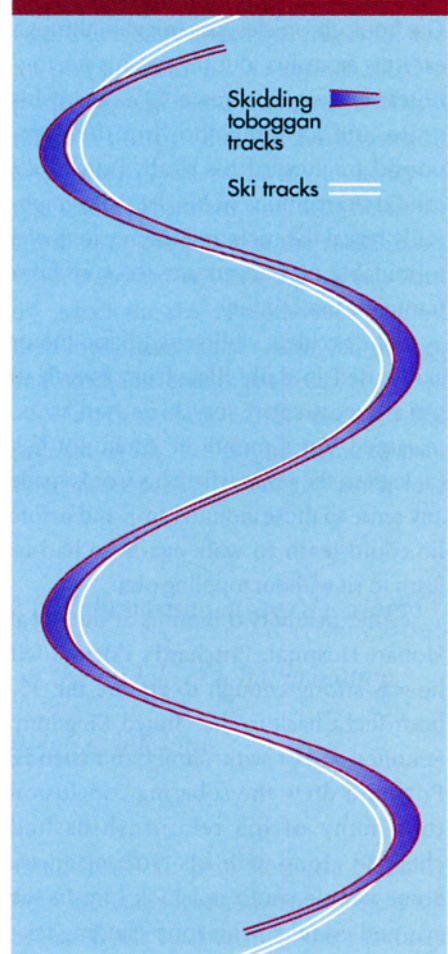
The purpose of the twist is to keep the toboggan flat to the snow (parallel with the slope, that is) or up on its downhill fin. Put a little twist on the handles, bring the toboggan up on the downhill fin a bit, and it will track the way it should.

*How do you get rid of that
confounded fishtailing effect?*

As with any toboggan-handling technique, it's important to practice the movement several times before using it in an actual emergency situation. And don't try this maneuver with an unloaded toboggan just yet; use ski poles at first, pretending that they're toboggan handles, to familiarize yourself with the movements of this exercise.

Stand on an intermediate groomed slope in a traverse position and hold your ski poles mid shaft at the same level as if you were holding toboggan handles. In skiing, your body position should take a cue from the angle of the slope, that is, everything on the uphill side (your ski, foot, knee, hip, shoulder, and hand) is higher and slightly ahead of the downhill side. About 60 percent of your weight is downhill and about 40 percent is uphill. Keeping your body flexed and relaxed, lift your uphill "handle" as you push down the downhill "handle." As you do this, notice that your upper body moves out over the downhill ski, increasing the weight (pressure) on the downhill ski. Do this several times, focusing on the weight shift that

FIGURE 1 TRACKS LEFT BY A SKIDDING OR SWINGING TOBOGGAN



occurs when you change the position of your "handles." This movement keeps your body aligned over your downhill ski—which helps you steer/guide the ski more efficiently so you can maintain better overall control. Both the twist on the handles and the increasing pressure on the downhill ski make this work effectively.

Now it's time to try this with an empty



Cascade 100 toboggan. (This exercise will also work with a fixed-handle toboggan such as the Cascade 350, but the 100 is the most commonly used toboggan.) On that same intermediate slope, with the toboggan handles unlocked, put yourself in a good traverse position with your hands behind the curve of the toboggan handles but ahead of your body. Your arms will be straight, with no bend at the elbow. Lift with your uphill hand (at this point, your uphill elbow will begin to bend), and push down with your downhill hand, keeping the arm straight, just as you did with the ski poles. Again, feel your upper body move out over the downhill ski. At this point, you'll also feel your weight shift, increasing the pressure on the downhill ski. These combined movements will cause the toboggan to tip, or "twist" up on its downhill fin. (Don't worry: you can't tip the toboggan over unless you go over too.) The uphill handle will hit you in the rib cage and the downhill handle will hit you just above the knee.

Holding the toboggan in this relatively "twisted" position, do a single traverse across the slope and stop. Turn around and look at your tracks. The toboggan track should be on top of or inside your downhill ski track (figure 2). Next, do a wedge turn. As you start the turn, remember that everything that was up and ahead (your ski, foot, knee, hip, shoulder, and hand) has to shift down and back (and vice versa). This includes the toboggan. Go ahead and make this first turn and link five more, then stop. Look at your tracks and the toboggan tracks. If the toboggan tracks are right on top of your ski tracks, you're doing it right.

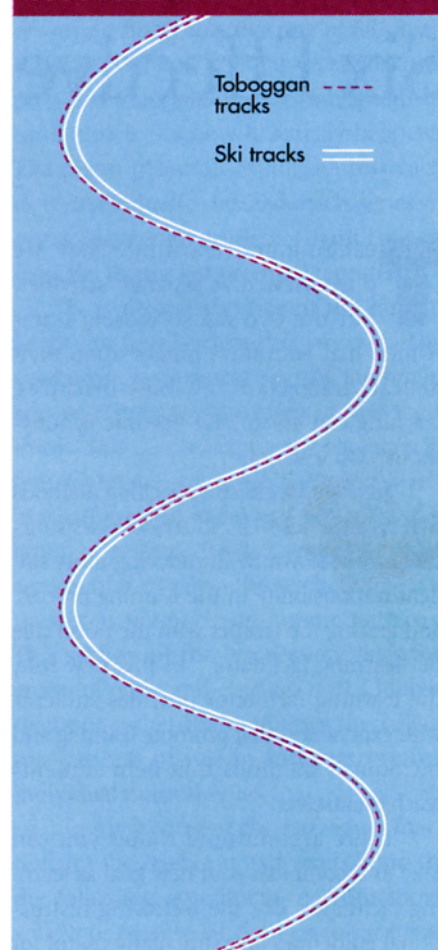
One way to drill this movement into your mind and your "muscle memory" is to visualize the toboggan as being full of water. Your job, as you ski the toboggan down the hill, is to empty the water out of the toboggan (i.e., by twisting the handles). You can only pour the water out to the

downhill side. You have to start emptying (twisting the handles) the water just before you and the toboggan enter the fall line. Keep emptying the water all the way through the turn. You must complete the emptying (twisting the handles) just before you start the next turn, at which point the toboggan magically fills up and you have to start over.

Now go make some more wedge turns with twist. Once you're comfortable with the maneuver, increase your speed and move to parallel turns. After you've mastered this challenge, try it out on another slope with a different pitch. Soon you'll be doing the twist nearly every time you run an empty toboggan. And before you know it, as you lay down those nice, carved arcs with your shaped skis, you'll be able to do the same with that big fiberglass shell you're hauling behind you. +

Richard Everett is Northern Division's director. An NSP member for 22 years, Everett patrols at the Montana Snowbowl ski area. He is also a member of the Cascade Toboggan Demonstration Team, a group of patrollers who present seminars on efficient toboggan-handling techniques to other patrollers around the world.

FIGURE 2 TRACKS LEFT BY A TOBOGGAN RUN WITH TWIST



Fin Maintenance

The fins on a toboggan need regular maintenance, just like skis. In addition to checking for cracks and making sure the fins are tightly riveted to the bottom of the toboggan, you need to keep them sharpened so they'll cut through—rather than fishtail over—the snow.

All you need is an 8-inch flat mill bastard file from your local hardware store and an ice skate sharpener, which should be available at just about any sports store that carries ice skates and hockey gear.

First, hold the file flat against the side of the fin and proceed to file off the burrs and dings. Do this to both sides of both fins. Now take the ice skate sharpener and make three or four passes down the fin from front to back. That's all there is to it.

Patrollers who run toboggans where there's a lot of hard pack will find that the toboggan tracks cleanly and holds better when the fins are sharp.

This toboggan tech tip was passed along to me by Mike Morrow of the Great Falls Ski Patrol, Northern Division.

—Richard Everett