



# Toboggan Train the Trainer Workshop (TTW)

## OBJECTIVES:

- Students will learn the aspects of teaching Outdoor Emergency Transportation as defined by the NSP and the Central Division in preparation for becoming an OET Instructors
- Students will practice and demonstrate Ski/Ride and Toboggan maneuvers at or above the basic OET level.
- Students will Observe, Evaluate/Diagnose, and Prescribe solutions for skiers and riders utilizing Movement Analysis and snowsports fundamentals to provide effective feedback.
- Students will design a lesson utilizing the 6 Pack.
- Students will teach a lesson based on skiing/riding skills or toboggan operations and provide effective feedback.

## PREREQUISITES:

- Recommendation as an OET Instructor from IT or Patrol Director
- Complete the NSP Instructor Development Course
- Complete Online Courses

## Review of Five Fundamentals of SnowSports:

	Ski	Snowboard	Telemark
*	Control the relationship of the center of mass to the base of support to direct the pressure along the length of the ski	Control the relationship of the center of mass to the base of support to direct pressure along the length of the board	Control the fore/aft relationship of the center of mass to the base of support to manage pressure along the length of the skis.
*	Control pressure from ski to ski and direct pressure toward the outside ski	Control the relationship of the center of mass to the base of support to direct pressure along the width of the board	Control the lateral the relationship of the center of mass to the base of support to manage pressure from ski to ski
*	Control edge angles through a combination of inclination and angulation	Control the board's tilt through a combination of inclination and angulation.	Control edge angles through a combination of inclination and angulation.
*	Control the skis rotation (turning, pivoting, steering) with leg rotation, separate from the upper body	Control the board's pivot through flexion/extension and rotation of the body.	Control the turning of the skis with rotation of the feet and legs in conjunction with discipline in the upper body.
*	Regulate the magnitude of pressure created through ski/snow interaction	Control the magnitude of pressure created through the board/surface interaction	Regulate the amount of pressure created through ski/snow interaction with flexion & extension movements
*		Control torsional flex of the board using flexion/extension and rotation of the body.	
*			Control the size, duration, intensity, rate, and timing of the lead change to manage fore/aft stability.

**6 PACK REVIEW:** Set, Concluding Objectives, Content Delivery, Learning Activities, Student Summary, Monitoring & Evaluation

## EFFECTIVE MOVEMENT ANALYSIS:

**Observation:** What do you see? What, when, and why does it happen? Remember to always observe from different positions. Can you describe what the student is doing? (This is like the scene size-up). Read what each fundamental. Are you seeing what is described? Start at the snow and work up. What are you seeing as it relates to the fundamentals.

**Evaluate/Diagnosis:** Why is it happening? **Causes and effects:** the body moves this way, and causes the ski/board to do this. Focus on the cause. Remember REAL vs IDEAL: compare the performance to the desired outcome. Ask yourself what issue you can address immediately to improve the student's success. This is like determining the chief complaint and addressing it. Use the fundamentals to guide your diagnosis. Address the chief complaint.

**Prescription:** What tasks, exercises, and drills can you use to address your diagnosis? Sometimes, static drills are more accessible and understandable. The prescription should address the specific issue, not be a broad-spectrum solution, and not be a solution that promises "more miles" without specifics.

## **EFFECTIVE MOVEMENT ANALYSIS: Prescription: continued**

The ultimate goal is to make a meaningful change. Change is never easy, so you might hear the student say, "That feels weird." Those are good words. Work from that and ask how or why it is different. **Different is good.** Give students time to experience the change. This might take one run or multiple; take your time. If you notice the movement isn't progressing, determine the necessary change. Consider simplifying the movement, moving to different terrain, or practicing static drills. Lead the student to the solution. For example, teaching a pivot slip involves a compound movement. Divide it into two single movements. We might practice hockey stops and slides first followed by pivoting or steering the skis down the fall line. Most skills are compound movements.

## **TTW Schedule:**

**Warm Up -** Appropriate terrain, Stretching before focus on Athletic Stance..

**Starting Off -**

- \* Safety Reminders
- \* Ski & Board 101: (How do they work? 30-minutes: Skiers with SB Inst., Boarders with Ski Inst.
- \* Application of Fundamentals while Skiing/Boarding 30-minutes: Skier w/Ski, Board /Board.
- \* Teaching: Learning Styles, Experiential Learning, MA, Importance of Actionable Feedback. Lesson Planning (6 Pack), Communication, Demos, the Tool Box, Do we teach as we were taught?

**Skill Review & Teaching Practice - Combined Groups.** Explain & Demonstrate, & How We Teach It. Practice teaching

**Braking Wedge, Wedge Turn, Modified Wedge**  
**Side Step, Herringbone, Skating, Uphill Traverse**  
**Traverse & Traverse with and without the Forward Sideslip**  
**Sideslip -** fore, aft, & straight down, both sides.  
**Falling Leaf -** both sides. (Is there only one way to do it?)  
**Hockey Stops -** both sides  
**Transition -** side to side Wedge Entry vs Pivot Slip?  
**Pivot Slip-** no wedge between, turn leg from hip

**Unloaded Toboggan Skills - UNLOCKED HANDLES** Combined Groups: Explain & Demonstrate & how we teach it.

**Parts of the Toboggan and Inspection**  
**Ski/Ride Toboggan to the incident site-** loose grip on handles, fall line descent, wedge vs. short radius turns; why?  
**Positioning the Toboggan:** Backing in vs. Driving in.  
**Anchoring / Loading the toboggan:** Methods

**Loaded Toboggan Skills - LOCKED HANDLES:** Appropriate terrain Teaching Assignments

**Reserve Breaking Rule:**

**Lead Operator:** Athletic Stance, Position in Handles (*why?*) Route Selection (*why?*), Consistent Fall Line Descent, Primary Brake, Communication, Emergency Stop

- \* "Chop Sticks" - (w / bamboo)

**Tail Operator:** Athletic Stance, Hand Position, Rope Management for Functional Tension, Tail Rope in Fall Line. (*why?*)  
Secondary Brake, Patient Monitoring, Monitor Traffic, Communication, (*What problems do you see and why?*)

- \* "Rope a Goat" with Tail Rope
- \* "Ski Pole Drill"

**Chain Brake:** Use, Types, Chain Release (*when & why?*), Deploying the Chain, "Feathering," Pulling up the chain.

**Moving directional changes -"Box Turn"** Variations 1 & 2: All transitions in or near fall line (*safety concerns*)  
Lead first / tail follows when lead is in a stable position / then team traverse

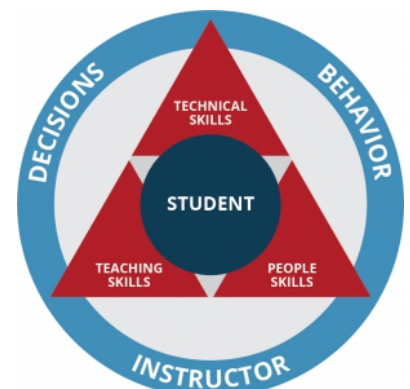
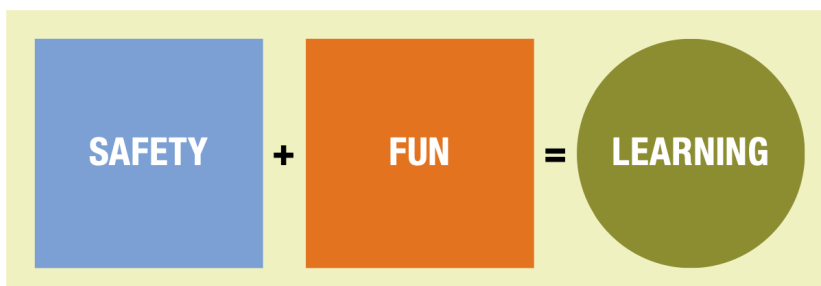
**Loaded toboggan Individual Descent -** Fall line descent, Slow and Continuous. Chain Brake is engaged or  
What and why should it be Automatically Deployable? (dead man switch)

- \* **Ungroomed or Moguled Terrain: Inside/Outside handles** Push/Pull to steer the toboggan.

**Change of Position:** Tail to Lead

**Drop Ins - Belaying:**

**Recovery Maneuvers:**



# **DEFINITIONS:**

**The following descriptions and definitions will help with a common language for MA.** Please see the Division Documents page for a comprehensive glossary of snowsports terms.

**Athletic Stance:** A balanced position with hips over feet and the ability to move in any direction at any time.

**Performance:** includes the ski/board action, location (phase of the turn), the relationship of the skis to each other and will consist of equipment variations

**Body Performance:** Includes **Rotational Control** mechanics, **Edge Control** movements, **Pressure Control** movements, the location of said movements, and the DIRT of the movements

**Cause and Effect Relationships:** “The body moves this way, and causes the ski/board to do this..”  
Evaluation of the cause or origin of an action, and the effect or result. The observer must consider the intent of the skier/rider, including his/her understanding. Equipment and mechanics are related factors.

**Real vs Ideal:** the instructor compares the students’ performance (real) to an optimal performance (ideal) for a given task, condition, or intent.

**DIRT:** an acronym standing for Duration, Intensity, Rate, and Timing. These terms assign value and, consequently, description to the observed movements.

**Duration:** Length of time the movement exists

**Intensity:** Power given to the movement. Amount, magnitude, or quantity.

**Rate:** The speed at which a movement occurs.

**Timing:** When the movement occurs. It could be related to another event. Additionally, the direction of the movement relative to the slope should be taken into account.

**Turn Size:** short, medium, or long. The turn size is often defined by a corridor of a specific measurement. The skis or board side cut may also be a factor.

**Turn Shape:** What path the ski or board takes is often observed in conjunction with checking whether the skier is using braking or shaping to control their speed. Common descriptions of turn shapes include C, J, or Z shapes.

**Drill:** a task or exercise used to enforce a desired performance or retain knowledge

**Exercise:** situations and tasks to help break down and isolate certain movements and skills for development. Often combined into a progression.

**Progression:** a sequence of acts, movements, or events that increase in difficulty and are designed to meet a goal or outcome.

**Instruction:** The prescriptive language used to guide improvement towards a specific goal or outcome.

**Feedback:** clear information that is given to help clarify if a desired result was achieved.

**Understanding the Body Performance and Ski Performance as they relate to the fundamentals:**

*Note: While it’s crucial to enhance individual skills or fundamental abilities, it’s equally important to effectively combine these skills for various tasks, conditions, and varying levels of difficulty. For instance, comparing short and long radius turns, powder and hard-packed terrain, groomed and un-groomed terrain, and flatter and steeper terrain.*

# **VISUAL CUES FOR EFFECTIVE SKIING**

**Athletic Stance:** Ability to move in any direction at any time.

- \* Is the skier centered fore/aft and laterally, does the shin maintain boot cuff contact Does the outside ski bend from the middle and more than the inside ski
- \* Does the skis remain in contact with the snow, tip to tail?
- \* Do the tails of the skis follow the tips thru the turn, and are both skis actively moving thru the turn?
- \* Does the angle of the lower leg equal the angle of the torso?
- \* Are the femurs (long bones of the upper leg) vertical?
- \* Is the lower back slightly rounded and the torso upright with slightly rounded shoulders?
- \* Is the nose over the toes?
- \* Do the shoulders and hands remain level with the terrain through the turn Where does the snow spray off the skis?

**Rotary movements:** Twisting Movements

- \* Do the turning forces originate from the feet and legs? Do the legs turn more than the upper body?
- \* Do the legs project a 'mirror' image?

**Edging movements:** Progressive Tipping of Ankles

- \* Are the lower legs parallel, or, do are the skis at equal angles to the snow?
- \* Do both skis tip to an edge at the same time? Are the boot cuffs tipping equally Are the edges released and engaged with one smooth movement?
- \* Do the shins maintain contact with the boot cuff (at the 10 and 2 position)
- \* Does the ski lead change occur early in the turn (tele)?

**Pressure movements:** Ski to Snow Contact

- \* Are the ankles flexing, or are they locked. Are the knees flexing?
- \* Do the skis bend progressively and smoothly throughout the turns?
- \* Is the weight predominately on the inside edge of the outside ski?
- \* Does the amount of leg flexion and extension allow for smooth flow during each turn, *and* turn to turn? Does flexing activity originate from the ankles, complemented by the knees, hips and lower back?

**Directional movements:**

- \* Does the inside hand, shoulder and hip lead the outside half into the turn?
- \* Are the shoulders forward of the hips?
- \* Do the ankles, knees and hip move forward and laterally in the direction of the new turn?
- \* Are movements into the new turn complemented by the pole swing?

# VISUAL CUES FOR EFFECTIVE SNOWBOARDING

Overriding movement concepts are that joints can flex, extend, rotate, or a combination of, which are categorized in the AASI Snowboard manual.

Performance concepts include twist, tilt, pivot, and pressure..

**Twist:** Twist refers to torsionally twisting the board along the long axis (tip to tail). Depending on the skill of the rider you may see twist in the board at any point in the turn. Typically, it's most visible at the transition from one edge to the other. Twist can be seen in a distinctive overlap in the tracks left in the snow by the edges, whereby the snowboard's old edge is engaged in the snow as the new edge engages due to active twisting of the board to start the turn.

At slower speeds the rider can actively generate twist through actions of the feet and lower legs. When trying to twist the board it's important to use subtle movements like flexing the ankle to pressure the toeside while lifting the toes of the other foot to pressure the heelside. "Big" movements like pushing the hips can also work, depending on the goal. If you are trying a butter, a big move just might be the best choice. It's important to communicate that, when trying to twist the board, the rider is still trying to keep his or her weight equal over both feet.

## Riding exercises for experiencing twist:

- While sideslipping or traversing on the heelside, bring only the toes of the front foot up toward the shin. An opposing movement with the rear foot is not needed to twist the board.
- While sideslipping or traversing on your toeside, flex the joints of the front leg and rotate the front leg toward the fall line. As the front edge of the board releases and the back the leg remains stationary, the board will twist.

**Tilt:** When a rider tilts the board on edge, the snowboard edge angle is influenced by the riding surface and how hard that surface is. A simple way to think of this is to envision the snowboard on a hard surface, like a floor. As soon as any tilt is applied, the rider would be balancing on the edge only. At the opposite end of the spectrum, if the rider tilted the board while moving through powder the snow would give in to the pressure applied to the edge but the base of the board would still be in contact with the snow; just as if the rider were standing on a flat surface. Slower speeds typically correspond to lower edge angles and thus allow for a larger balance platform. Higher speeds allow a rider to achieve higher edge angles while remaining in balance due to forces built up in the turn. The rider may establish and adjust board tilt with large movements of his or her center of mass (CM) relative to the working edge through flexion/extension of the ankles, knees, and hips, with smaller fine-tuning movements of the foot and ankle.

## Riding exercises for experiencing tilt (edge angle):

- While traversing on the heelside edge, raise your toes toward your shins.
- While sideslipping on the toeside edge, "open" your ankles as if standing on the balls of your feet

**Pivot.** Pivot occurs when the board rotates around a particular point along its length. A reference pivot point should be centered between the feet. Depending on snow conditions, terrain, and intent, the pivot point may shift beyond the front foot. In extreme instances, such as during nose and tail rolls, the pivot point is out to the tip or tail of the board.

## Riding exercises for experiencing pivot:

- First, imagine that the nose of your board has been staked to the ground yet is left free to rotate around that point. If you want to turn yourself around and face the other way you would have to lean forward over the

nose and turn your shoulders in the direction you want to end up facing. The board would start to pivot around the nose. It's important to note that the pivot point can be anywhere along the length of the board.

#### Riding exercises for experiencing pivot (continued)

- Alternatively, using only the feet and legs, try to create a “bow-tie” shape in the snow. To do this, the pivot point will be in the middle of the board, between the bindings. Push the front foot forward while pulling the back foot back. Now, reverse the motion, pulling the front foot back while pushing the back foot forward. As you repeat the motions the bow-tie shape should start to form, with the narrowest part of the bow-tie between the bindings.

#### Pressure:

The concept of pressure and pressure distribution has to do with where along the snowboard's length (tip to tail) and width (edge to edge) pressure is most heavily applied and how to make this happen. Pressure adjustments—made through flexion, extension, and rotation— may be applied across the snowboard or concentrated in one spot. In a static position, with the rider in a stable, neutral stance, the feet are equally weighted and the rider's weight is dispersed along the entire board. As the rider shifts toward the nose or tail the “pressure point” also changes.

An accomplished rider can make subtle changes in where along the board—and when—pressure is applied or released in order to achieve a desired outcome. Sometimes these changes are subtly made by minor flexion, extension, or rotation movements throughout a turn or through very obvious movements, such as when performing an ollie or wheelie. Pressure is also affected by gravity, what part of the turn a rider is in at any given moment, the amount of twist and tilt, and even how quickly a rider's center of mass (CM) moves toward the board or how quickly the feet are pulled toward the CM (retraction).

#### Riding exercises for experiencing pressure distribution:

- While sliding, move your CM forward toward the nose of the board, and then backward toward its tail.
- While sliding, flex and extend vertically, or jump and land either loudly or quietly.

#### Visual clues would be seen at the shoulders

- \* are the shoulders level to horizon?
- \* are shoulders tipping forward or back?
- \* are they staying stacked over board?
- \* are the shoulders twisting before the board?
- \* are the shoulders staying quiet over the hips?
- \* are you seeing the cross on the back?
- \* are you able to play hide in seek with one shoulder?

#### Visual clues in legs

- \* are legs forming an Isosceles Triangle?
- \* are the legs flexed enough to unlock hips and ankles?
- \* are the legs working independently of each other?
- \* dorsiflexion / plantar flexion

#### Visual clues for the Board

- \* is it riding an arc
- \* is the back leg kicking the board
- \* is the board twisting?
- \* is the board going flat between turns

# OUTDOOR EMERGENCY TRANSPORTATION

## SIX PACK LESSON PLAN REFERENCE GUIDE

**LESSON TITLE:** State the specific lesson title. Multi-phased lessons or classes of long duration can use more than one lesson plan.

<b>INSTRUCTOR MATERIALS</b> Include all necessary materials for your lesson and outdoor presentations, as well as any assistants required.	<b>STUDENT MATERIALS</b> Plan materials early enough to inform students before class. List specific materials required for your lesson here.	<b>REFERENCES</b> List all references here. Much of this can be found in the Outdoor Emergency Transportation Manual PSIA Technical Manuals
TIME	INSTRUCTOR & STUDENT BEHAVIOR	
<i>Listing the running time or clock time for each part of the lesson is extremely important. By doing so, you are ensuring that all material is given in the proper amount of time for adequate coverage. Proper planning and rehearsal will help formulate the time used for each step.</i>	<b>SET</b> Include a brief statement about your set, such as a review of previous concepts, drills, or tasks. This can be an attention-grabber and a way to interest the student in what follows, providing relevance to their learning needs. Lessons may include larger or smaller <b>sets</b> or none at all.	
	<b>CONCLUDING OBJECTIVE(S)</b> This is the most crucial part of any lesson plan. It should outline the steps and use key verbs like "describe," "show," "practice," "perform," "analyze," "model," and "relate." Start with "The student will be able to" (SWBAT). Consider the student's prior learning and current skill level. Be cautious when using multiple performance-based objectives, as sequencing them for success and mastering them will take time.	
	<b>CONTENT DELIVERY</b> Content Delivery is how you are going to present the information to your class. <b>It is the essential content.</b> In OET, most CD will be demonstrations with individual & group practice. Remember to build exercises & progressions on previous knowledge, so the students can make a connection to a specific feel or sensation. <u>Different</u> sensations should be encouraged because the student is doing something new. Reinforce the different aspects of the feel. Give the students a <u>FOCUS</u> , (What to feel, Where to feel it. What to do or Where to look) Remember that a previously learned skill might diminish when a new skill is introduced. Be supportive and encouraging.	<i>Ongoing monitoring is a vital part of information delivery. It can be as simple as a "question and answer" session. Immediate feedback will help you make "on the fly" adjustments to information delivery.</i>
	<b>LESSON ACTIVITIES</b> Guide practice by setting goals appropriate to the student's ability, energy, and desires. By sequencing drills and tasks you allow students the opportunity to reinforce the skills that have been presented. When you provide feedback during the lesson you have the opportunity to ensure your student is actually learning and understanding the desired outcomes. <u>Introduce one task at a time</u> and allow the students to practice that specific skill. <u>Repetition of movement</u> reinforces the learning. Don't assume one repetition will do. Instead, use a phrase like "Do three runs thinking about this....," then carefully sequence a new task into the progression. Reinforce the changes you see for the better no matter how small. If you don't see a change, think of another way to demonstrate your task, simplify the movement pattern, or move to less challenging terrain. Don't rush this step. Leave the student with tasks or a progression that they can continue to practice and perfect. Remember VIDEO can be a powerful teaching tool. <b>"SAFETY + FUN = LEARNING"</b>	<i>Guided practice is the most effective form of ongoing monitoring at this point, however, this is primarily applicable to skill based information. Reassess your lesson plan if your student activities do not incorporate observable behavior.</i>
	<b>STUDENT SUMMARY</b> The student summary helps him/her sort through the content they have received. The student can describe what they are experiencing or learning through practice. The goal should always be an effective two-way dialogue between the student and instructor.	<i>An effective student summary enables the instructor to see if the concluding objective(s) have been matched with the</i>
	<b>MONITORING AND EVALUATION</b> Feedback & Evaluation is paramount to learning since, without them, your students won't know how they're progressing. Quality feedback is non-judgmental and clear, and provides <u>specific solutions</u> to behaviors, movements or outcomes. Through well-considered feedback, you can reinforce effective performance movements while pointing out weaker or deficient movements. PSIA/AASI Fundamentals can be used to guide the evaluator. Utilize <b>OBSERVE, EVALUATE</b> (Diagnose) & <b>PRESCRIBE</b> to assist in planning. Again, video can be a useful tool. The final evaluation in OET involves the performance of a variety of tasks utilizing complex movement patterns that must be coordinated with other patrollers. Monitoring is always essential and should involve mastering each task while refining the movement patterns and building more complex movements in varied terrain and conditions.	

\* is the tail of the board following the tip?

## SIX-PACK LESSON PLAN REFERENCE

LESSON TITLE:

INSTRUCTOR MATERIALS

STUDENT MATERIALS

REFERENCES

TIME

INSTRUCTOR & STUDENT BEHAVIOR

SET

CONCLUDING OBJECTIVE(S)

CONTENT DELIVERY

LESSON ACTIVITIES

STUDENT SUMMARY

MONITORING & EVALUATION



# Central Division Train the Trainer Course Feedback

You may use the other side for additional comments.

Participant Name \_\_\_\_\_

List Topic(s) Taught: Skill(s) \_\_\_\_\_ Toboggan \_\_\_\_\_

	Comments		Level
<b>SET</b> ...Did Trainees Do something?			= -
<b>CONCLUDING OBJECTIVES</b> Stated at outset Appropriate to Sequence			= -
<b>CONTENT DELIVERY</b> Blend of Auditory, Verbal, Kinesthetic Two-way communication Maintains a safe environment Blends Static Drills & Movement Drills			= -
<b>LEARNING ACTIVITIES</b> Guided Practice with Feedback: Specific & Movement Analysis			= -
<b>STUDENT SUMMARY</b> Restated objectives & what the student did.			= -
<b>MONITORING &amp; EVALUATION</b> Objective(s) is/are measured Instruction is adapted for need. Assignment: What's next? Where do we go. Practice			= -
<b>TECHNICAL CONTENT</b> Knows course material Used correct terms Clearly Presented Sequences material for success			= -
<b>DEMONSTRATION SKILLS</b>	<b>Athletic Stance</b> = -	<b>Toboggan Inspection</b> = -	= -
	<b>Traverse</b> = -	<b>Unloaded Toboggan</b> = -	
	<b>Side Slip</b> = -	<b>Loaded Lead Toboggan</b> = -	
	<b>Falling Leaf</b> = -	<b>Loaded Lead Toboggan</b> = -	
	<b>Hockey Stop</b> = -	<b>Equipment Carry</b> = -	
	<b>Pivot Slip</b> = -		

comments:

Clinicians \_\_\_\_\_

