



Outdoor Emergency Transportation Program

Continuing Education

The National Ski Patrol has created a continuing education curriculum for members that are interested in expanding their knowledge base and improving their skills in skiing, snowboarding, and toboggan handling in order to enhance their rescue capabilities

The following information is intended to serve as a continuation of the Outdoor Emergency Transportation Manual and is specifically designed for instructors of the various transportation continuing education courses including:

- [OET On-The-Hill/Trail Refresher](#) (TREF)
- [Snow Sports Enhancement Seminar](#) (SES)
- [OET Enhancement Seminar](#) (TES)
- [Snow Sports Trainers Workshop](#) (STW)
- [Toboggan Trainers' Workshop](#) (TTW)

Note: Area management dictates the transportation requirements for patrollers at their respective snow sports areas, but the NSP's refreshers and seminars help patrollers enhance their skills beyond the basic requirements.

Oversight and scheduling of these modules is the responsibility of area management, not the NSP, but the guidelines provided herein can help NSP instructors coordinate the respective curriculums with area management as well as representatives from the Professional Ski Instructors of America and the American Association of Snowboard Instructors.



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ON-HILL TRANSPORTATION REFRESHER (TREF)

[\[TOP\]](#)

TARGET USERS: interested NSP members, or as required by area management.

FREQUENCY: Determined by area management and patrol representative.

REFRESHER COORDINATOR: Ski area management

REFRESHER INSTRUCTOR: NSP Transportation Program (Alpine or Nordic) instructor

REFRESHER GOALS

- Examine basic skiing/riding skills of patrollers
- Review NSP and area requirements for safe toboggan handling
- Review local area procedures for toboggan handling
- Improve patroller image with ski industry and public by improving overall skiing/riding and transportation ability
- Maintain interest in the sport and enhance member benefits

REFRESHER COST

None

RECOMMENDED CLASS SIZE

Varies by area, but adequate instructor-to-student ratio must be maintained.

HOW TO ORGANIZE AN ON-HILL TRANSPORTATION REFRESHER

1. Schedule with area management and patrol representative.
2. Determine skills areas to be refreshed.
3. Notify patrollers who need to attend.
4. Arrange for instructors to help meet objectives of refresher, as well as equipment required.

CREDENTIAL AWARDED UPON COURSE COMPLETION

None

REFRESHER INSTRUCTOR NOTES

Area management determines all on-hill training and skills requirements for patrollers, and the patrol representative/director is responsible for organizing training and on-hill refresher courses to meet those requirements.

The on-hill transportation refresher should examine the transportation performance objectives designed for patrollers by area management. In addition, it should examine a patroller's skiing/riding ability and familiarity with area policies and procedures.

In order to perform many toboggan-handling skills, patrollers must have exceptional skiing or riding technique. Transportation instructors are encouraged to use the information below as a guide when developing on-hill refresher courses related to toboggan handling and transportation for all patrol disciplines.



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REFRESHER ESSENTIAL CONTENT

Concluding Objectives

As directed by area management, the participants may:

- Review and demonstrate the necessary skiing/riding skills and maneuvers to operate a toboggan at the ski area.
- Review equipment used for rescue at their area.
- Review the particular terrain and proper route selection.
- Demonstrate proper operation of an unloaded toboggan.
- Demonstrate proper management of an incident scene.
- Demonstrate proper operation of a loaded toboggan.
- Review and demonstrate belaying techniques.

Essential Content

Introduction

Provide participants with a brief overview of the program and expectations for the day.

Ensure access to *Outdoor Emergency Transportation: Principles of Toboggan Handling*.

On-Snow Activities and Considerations

Alpine Skiing/Riding Skill Proficiency Review

Instructors should evaluate patrollers' skiing and riding proficiencies based on their performance of the following tasks:

- A run on moderate to difficult terrain, performing short-, medium-, and long-radius turns while demonstrating effective balance, edging, rotation, and pressure-control skills.
- A run on steep terrain or a mogul field while demonstrating stability and control.
- An equipment-carry run through varied snow conditions and terrain.
- A controlled run while demonstrating wedge, traverse, sideslip, transition, and emergency stop maneuvers.

Nordic Skill Proficiency Review

Instructors should evaluate Nordic patrollers' skiing proficiencies based on their performance of the following tasks while carrying standard patrol packs:

- A run over moderate to difficult rolling terrain on a groomed track while demonstrating efficient forward motion in flat-track, uphill, and downhill techniques.
- A three- to four-hour ski tour over varied terrain (both on- and off-track) while demonstrating the physical endurance necessary to deal with emergency search and rescue situations in any terrain or weather.

Alpine Toboggan-Handling Review

Alpine transportation refresher candidates should be able to demonstrate appropriately as lead(Front) or tail(Rear) operator:

- Transport the toboggan to a simulated incident site.
- Safely approach an injured skier while performing: straight-run, wedge, parallel turns, side slipping or an emergency stop.
- Position and secure the unloaded toboggan at the incident site.
- Control and lead a loaded toboggan on the area's moderate to difficult terrain.
- Make appropriate route selection decisions.
- Perform a sideslip (forward, backward, and straight down), wedge, and transition maneuvers; braking techniques; straight run; traverse techniques.
- Communicate clearly with tail(Rear) operator.

Nordic Toboggan-Handling Review

Nordic transportation refresher candidates should be able to demonstrate appropriately:

- Transport a commercial Nordic toboggan to a simulated accident site;.



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- Fabricate an emergency toboggan at a simulated accident site with materials carried in a standard patrol pack.
- Establish an effective belay system.
- Work as part of a team of three or four patrollers.
- Transport a loaded toboggan (commercial or improvised) over varied terrain (uphill or downhill, wide or narrow trails) while providing a controlled, smooth and comfortable ride.
- Make appropriate selection of knots, anchors, and belay positions.
- Make appropriate route selection decisions.
- Perform a sideslip (forward, backward, and straight down), kick turn, step turn, wedge and braking techniques, transition maneuvers, diagonal stride and herringbone technique, fall-line technique, and traverse techniques from control, load-hauling, and braking positions.

Local Alpine Patrol Policies Review

Transportation policies vary from area to area but alpine patrollers should be familiar with:

- Area and patrol operation procedures including sign-in, patrol assignments, duty rotation, relief, and sweep.
- The location, degree of difficulty, length, and names of all trails within the area's boundaries.
- The location of all toboggan stations.
- The procedures for checking out, returning, and restocking toboggans.
- The area and patrol's communication systems.

Local Nordic Patrol Policies Review

Nordic patrollers should be familiar with:

- Area and patrol operation procedures including sign-in, patrol assignments, duty rotation, relief, mechanized toboggan transport, and sweep.
- The location, degree of difficulty, length, and names of all trails within the area's boundaries.
- Survival objectives designed for the specific area being patrolled.
- Search and rescue procedures.
- The area's and patrol's communication systems.

Wrap-Up

- Provide an opportunity for any questions and answers.
- Provide meaningful feedback.
- Collect on-hill refresher evaluation forms.



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ADDITIONAL EDUCATIONAL OPPORTUNITIES TO ENHANCE SKIING/RIDING SKILLS

On Snow

- Participate in PSIA/AASI classes.
- Participate in a Snow Sports Enhancement Seminar.

Publications (available through NSP Catalog)

- *Outdoor Emergency Transportation: Principles of Toboggan Handling*
- *Instructor's Pocket Guide: to accompany OET*
- *PSIA-AASI Core Concepts for Snow sports Instructors*
- *PSIA Alpine Technical Manual: Skiing and Teaching Skills*
- *AASI Snowboard Manual*
- *PSIA Alpine Movement Assessment Pocket Guide*
- *PSIA Nordic Technical Manual*

Videos

- *Alpine Toboggan Training*
- *Alpine Technical Video*
- *Telemark Skiing Video*
- *Snowboard DVD: Focus on Riding*



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SNOW SPORTS ENHANCEMENT SEMINARS (SES) FOR ALL DISCIPLINES [\[TOP\]](#)

TARGET USERS: Any interested, current NSP members

FREQUENCY: As needed

SEMINAR COORDINATOR: NSP Transportation Program instructor in cooperation with NSP Division Transportation Program advisor and PSIA/AASI National Education Committee division representative

SEMINAR INSTRUCTOR: PSIA/AASI division clinic leader and PSIA Certified Level III, and AASI level II instructors.

SEMINAR INSTRUCTOR REQUIREMENTS

- PSIA/AASI division clinic leaders
- Qualified, *screened*, and certified instructors in good standing with PSIA/AASI.

SEMINAR GOALS

- Improve the skiing/riding skills of NSP members
- Improve patroller image with ski industry and public by improving ski/ride ability
- Enhance NSP PSIA/AASI relationship through professionally organized ski/ride instruction
- Maintain interest in sport and improvement of member benefits

SEMINAR COST: Normal PSIA/AASI division clinic charges plus any additional charges for lift tickets. NSP and PSIA/AASI coordinators must agree upon final fees. NSP divisions are responsible for collection of fees from participants and payment to PSIA/AASI division clinic leaders and/or division offices.

RECOMMENDED CLASS SIZE: Six to eight participants per PSIA/AASI instructor

HOW TO ORGANIZE A SKIING ENHANCEMENT SEMINAR

1. *Schedule the seminar:* Contact the PSIA/AASI National Education Committee division representative. PSIA/AASI prefers to confirm dates and instructor commitments between April and June for the following ski season.
2. *Screen/select seminar instructors:* To be accomplished by the PSIA/AASI National Education Committee division representative or the PSIA/AASI National Certification division representative.
3. Get permission from area management to host the seminar.
4. Register the seminar with the national office and notify division, region, etc.
5. Advertise the seminar to the appropriate audience.
6. Submit Course Completion Record to national office within two weeks of close of course.

CREDENTIAL AWARDED TO PARTICIPANTS UPON COURSE COMPLETION

- NSP Certificate of Achievement
- Attendance records submitted to the national office will be input into the member records.



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SEMINAR INSTRUCTOR NOTES

This seminar should simply be the best ski/riding lesson the NSP participants have ever had. How an instructor conducts the lesson is up to the individual and his or her personal style of teaching. However, NSP's goal is to ensure that all its members participating in these events across the country receive consistent information. This is the reason for the seminar outline, included below.

Challenge the participants, but keep it safe and within the comfort zone of all participants. To prepare participants for a meaningful experience, it may be appropriate to preface the day with a few motivational thoughts on how to take a ski/ride lesson. Even strong skiers and riders can benefit from a few different ideas, especially since the intent is not to change their entire technique, but to simply increase efficiency.

In addition, you may encounter a wide variety of skill levels across the country. Patrollers who ski at steeper mountains tend to be fairly well balanced and relatively strong skiers and riders. They may not need to spend a lot of time on the issues of balance and alignment, while weaker groups may focus on that topic for most of the day. Challenge the stronger participants by taking the concepts of turn shape and speed control to varying conditions and steeper terrain, or use more difficult tasks if clinic terrain is limited.

SEMINAR ESSENTIAL CONTENT

Concluding Objectives

The participants should be able to demonstrate the ability to:

- Identify personal skiing/riding strengths and weaknesses.
- Identify good balance and alignment in self and peers.
- Ski/Ride with improved efficiency (turn shape and speed control),
- Develop (with the PSIA/AASI seminar instructor) some activities/exercises for continued improvement.
- Identify opportunities for further learning.

Essential Content

Introduction:

- Distribute handouts if used (to determine group expectations and focus)
- Provide a brief overview of clinic schedule and expectations

On-Snow Activities and Considerations

(SKIING)

1. Warm-up and group needs assessment
 - a. Evaluate participants' balance and alignment using any or all of the following drills
 - Hopping on one foot
 - Sideslipping
 - Falling leaf
 - Turns on the outside ski only
 - Thousand steps
 - b. Evaluate group's basic understanding of skiing. Do they know
 - How balance and alignment influence skiing,
 - How to blend skills to produce desired outcomes (speed and turn shape)

Spend adequate time assessing your group's needs. Watch them and ask questions to determine their level of understanding. Be sure to assess their overall balance and alignment skills and discuss desired turn shapes and speed control.



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(RIDING)

In the early years of riding turns originated from the upper body eventually directing the board. Many self-taught riders will adopt the same movements. Flexing through the apex of the turn and extending on edge change to up weight the board to avoid catching the new edge before it is set. This is also known as a cross over turn. While some upper body movements still have their application today, basic turning movements tend to happen closer the board, resulting in quicker response and more efficient movements. Introducing cross under technique: Flexing at edge change, using torsional flex to initiate the turn and extending throughout the control phase of the turn. The finish includes flexing to prepare for the next turn initiation.

1. Warm-up and group needs assessment
 - a) Evaluate participants' balance, alignment, flexion and extension timing using any or all of the following drills
 - Medium shaped turns
 - Side slipping
 - Falling leaf
 - Flat spins using torsional flex
 - Spins, using torsional flex.
 - Evaluate group's basic understanding of riding. Do they know Movement concepts (flex, extend, rotate); Performance Concepts(Tilt, Twist, Pressure, Pivot).
 - b) Spend adequate time assessing your group's needs. Watch them and ask questions to determine their level of understanding. Be sure to assess their overall balance and alignment skills and discuss:
 - Turn initiation using torsional flex.
 - Flexion and Extension to produce cross over or cross under turns.
 - Cross under turns lead to dynamic riding.
 - c) When basic skills are at peak introduce SWITCH using same teaching skills and drills with a goofy stance.
 - d) Address desires for learning tricks like Ollie/Nollie/Rolls/Butters/Manuals/Air 180's/grabs/rails/table tops etc.
2. Divide participants into groups according to ability but allow for grouping changes as necessary throughout the day. After determining the appropriate skill focus for the group, instructors should explain "why" they chose that particular focus. Choose your skill focus according to the needs of your group.

(Note: Even though we want all participants to leave with a good understanding of balance, alignment, torsional flex and how to vary turn shape and speed to produce desired outcomes, there are more than several ways to skin a cat.)

3. Determine group focus and explain why participants have been grouped together. The instructor for each group will choose to focus on one or two skills throughout the day and will introduce appropriate drills and exercises. The focus for each group may be slightly different, but the general outcome will be the same; i.e., understanding good balance and alignment and how to blend skills to produce desired turn shape and speed.



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4. Perform exercises and drills that will lead to desired outcomes for the respective groups. Be sure that all the information makes sense and keep it simple. The patrollers may ask for a little more of the *why* but that does not mean lengthy technical discussions on the hill.
5. Practice and feedback
 - Immediate and ongoing feedback: Make practice fun and meaningful. Be sure that everyone gets individual feedback. It does not have to be a lot of different ideas—stick to one or two concepts, but be sure that everyone leaves with input specific to their needs.
 - Personal game plan: Each participant should leave with a personal game plan for improvement (a written plan may be desirable).

Wrap-up

- Provide an opportunity for any questions and answers.
- Collect seminar evaluation forms.

ADDITIONAL SKIING/RIDING ENHANCEMENT RESOURCES AVAILABLE TO NSP MEMBER

On snow

- Local PSIA/AASI ski schools
- PSIA/AASI division clinics (check with the PSIA/AASI division in your region for participation opportunities)
- NASTAR clinics

Publications (available through NSP catalog)

- *Outdoor Emergency Transportation: Principles of Toboggan Handling*
- *Instructor's Pocket Guide: to accompany OET*
- *PSIA-AASI Core Concepts for Snow sports Instructors*
- *PSIA Alpine Technical Manual: Skiing and Teaching Skills*
- *AASI Snowboard Manual*
- *PSIA Alpine Movement Assessment Pocket Guide*
- *PSIA Nordic Technical Manual*

Videos:

- *Alpine Technical Video*
- *Telemark Skiing Video*
- *Snowboard DVD: Focus on Riding*



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TOBOGGAN ENHANCEMENT SEMINARS (TES)

[\[TOP\]](#)

TARGET USERS: Any interested, current NSP member

FREQUENCY: As needed

SEMINAR COORDINATOR: NSP Transportation Program Instructor

SEMINAR INSTRUCTOR: NSP Transportation Program Instructor

SEMINAR GOALS:

- Improve the toboggan-handling skills of NSP members
- Improve patroller image within the ski industry
- Maintain interest in patroller education
- Provide a valuable program within the ski industry

SEMINAR COST: Direct costs associated with conducting the seminar.

RECOMMENDED CLASS SIZE: Six participants per toboggan instructor

ORGANIZING A TOBOGGAN ENHANCEMENT SEMINAR

1. *Register the seminar:* Contact the NSP National Education Department before conducting the clinic.
2. *Schedule the seminar:* Get permission from area management to host the seminar.
3. *Select seminar instructors:* Contact the Division Transportation Program Supervisor to identify qualified staff and to notify of intent to conduct a seminar.
4. *Develop the curriculum:* Instructor of record should review the skill components in *Outdoor Emergency Transportation: Principles of Toboggan Handling* for inclusion in the program.
5. *Establish seminar objectives:* Use the general principles and objectives found in *Outdoor Emergency Transportation: Principles of Toboggan Handling*. (A seminar may focus on a single aspect of toboggan handling, multiple skills, and/or varying terrain. A detailed program outline and complete lesson plan including skills to be taught and evaluated, procedures for validation of skills, instructor staff, other pertinent safety and risk management information, and evaluation surveys should be readily available and on file upon request.)
6. Advertise the seminar to the appropriate audience.
7. Submit Course Completion Record to national office within two weeks of close of course.

CREDENTIAL AWARDED TO PARTICIPANTS UPON COURSE COMPLETION

- NSP Certificate of Achievement
- Attendance records submitted to the national office will be input into the member records.

SEMINAR INSTRUCTOR NOTES

This seminar should simply be the best toboggan-handling skills lesson the patroller participants have ever had. How an instructor conducts the lessons in the program is up to the individual and his or her personal style of teaching. However, NSP's goal is to ensure that all its members participating in these events across the country receive consistent and accurate information. This is the reason for developing the seminar essential content and required use of the *Outdoor Emergency Transportation: Principles of Toboggan Handling* guide.



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Challenge the participants, but keep the program safe at all times and within the comfort zone of all participants. Review safety and risk-management issues for toboggan programs. Determine the ability of each participant and choose or adjust the terrain accordingly. Monitor the ability of the group. Arrange for changes to be made early in the day. Such changes will ensure that everyone obtains the maximum benefit from the clinic.

Be sure to hand out course evaluation forms and any continuing education information. You may wish to add to the list or generate your own specific to your program.

Discuss with the group the focus of the seminar as well as the skill objectives of the program. Be sure to make time for questions and ensure students have an understanding of the material and skills covered during the day.

SEMINAR ESSENTIAL CONTENT

Concluding Objectives

The participants will be able to:

- Understand and identify the proper techniques as described in the *Outdoor Emergency Transportation: Principles of Toboggan Handling* guide.
- Identify personal toboggan-handling strengths and weaknesses,
- Identify opportunities for additional training at the patrol level.

Note: All participants will receive an individual critique and brief personal training plan

Essential Content

Use the *Outdoor Emergency Transportation: Principles of Toboggan Handling* guide when developing seminar lessons. Develop lesson guides for the seminar while focusing on specific knowledge and skill objectives from the manual.

Introduction:

- Distribute handouts if used (to determine group expectations and focus)
- Provide a brief overview of clinic schedule and expectations

On-Snow Activities and Considerations

- Spend adequate time assessing your group's needs. Watch them and ask questions to determine their level of understanding. Be sure to assess their overall toboggan-handling skills and those specific skiing/riding skills associated with running toboggans.
- Be sure that all the information makes sense and keep it simple. The participants may ask for a little more of the *why* but that does not mean *lengthy* technical *discussions* on the hill.
- Explain and use the *objective* method of toboggan skills teaching—that is, there is more than one way to perform each skill.
- Make practice *fun* and meaningful. Be sure that everyone gets individual feedback. Provide tips and exercises for participants to use at home to work on their individual skills.
- Leave each participant with a personal game plan for improvement (a written plan may be desirable).

Wrap-up

- Provide an opportunity for any questions and answers.
- Collect seminar evaluation forms.



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Additional NSP Skiing and Toboggan Enhancement Resources

On snow

- NSP Skiing Enhancement Seminar
- NSP Ski Trainers Workshop
- NSP Senior Training Program
- PSIA ski lessons

Publications (available through NSP catalog)

- *Outdoor Emergency Transportation: Principles of Toboggan Handling*
- *Instructor Pocket Guide, to accompany OET*
- *PSIA-AASI Core Concepts for Snow sports Instructors*
- *PSIA Alpine Technical Manual: Skiing and Teaching Skills*
- *AASI Snowboard Manual*
- *PSIA Alpine Movement Assessment Pocket Guide*
- *PSIA Nordic Technical Manual*

Videos

- *Alpine Toboggan Training*
- *Alpine Technical Video*
- *Telemark Skiing Video*
- *Snowboard DVD: Focus on Riding*



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SNOW SPORTS TRAINERS WORKSHOP (STW)

[\[TOP\]](#)

TARGET USERS: NSP certified Transportation Program instructors

FREQUENCY: As needed

SEMINAR COORDINATOR: NSP Snow Sports advisor in cooperation with NSP Division Snow Sports Program advisor and PSIA/AASI National Education Committee division representative

SEMINAR INSTRUCTOR: PSIA/AASI division clinic leader and PSIA Certified Level III, and AASI Certified Level II instructors

SEMINAR INSTRUCTOR REQUIREMENTS

- PSIA/AASI division clinic leaders
- Qualified, *screened*, and certified instructors in good standing with PSIA/AASI.

SEMINAR GOALS

- Improve evaluation skills of NSP Snow Sports Program instructors.
- Give NSP trainers a means to develop a photographic eye using observational cues to assist them in training Ski and Ride instructors.

SEMINAR COST: Normal PSIA/AASI division clinic charges plus any additional charges for lift tickets. NSP and PSIA/AASI coordinators must agree upon final fees. NSP divisions are responsible for collection of fees from participants and payment to PSIA/AASI division clinic leaders and/or division offices.

RECOMMENDED CLASS SIZE: Six to eight participants per PSIA/AASI instructor

HOW TO ORGANIZE A SNOW SPORTS TRAINERS WORKSHOP

1. *Schedule the seminar:* Contact the PSIA/AASI National Education Committee division representative. PSIA/AASI prefers to confirm dates and instructor commitments between April and June for the following ski season.
2. *Screen/select seminar instructors:* To be accomplished by the PSIA/AASI National Education Committee division representative or the PSIA/AASI National Certification division representative.
3. Get permission from area management to host the seminar.
4. Register the seminar with the national office and notify division, region, etc.
5. Advertise the seminar to the appropriate audience.
6. Submit Course Completion Record to national office within two weeks of close of course.

CREDENTIAL AWARDED TO PARTICIPANTS UPON COURSE COMPLETION

- NSP Certificate of Achievement
- Attendance records submitted to the national office will be input into the member records.



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NSP SNOW SPORTS TRAINER WORKSHOP INSTRUCTOR NOTES

This program emphasizes a partnership and cooperative effort between PSIA/AASI instructors and NSP trainers. The purpose of the Snow sports Trainer's Workshop is to give NSP trainers a means to develop a photographic eye using observational cues that will help you:

- **Improve Ski & Riding Evaluation Skills:** As a Snow sports trainer, your ability to see and hold a mental picture of a skiing or riding run at any given moment allows you to provide positive feedback and help candidates and patrollers improve their performance. Being able to recognize basic skiing/riding flaws can only be acquired by practice and experience. The Snow sports Trainer's Workshop is designed to help you, as an NSP trainer, identify what good skiing/riding skills look like and develop a photographic eye that will enable you to remember your trainees' performance long enough to analyze their technique. This workshop is intended to help trainers progress in their ability to train and evaluate others properly
- **Recognize Your Abilities and Limitations as a Ski/Ride Trainer:** During the Snow Sports Trainer's Workshop your evaluative skills will improve by developing a basic understanding of features present in good skiing/riding. With this understanding, you will learn and practice basic drills and exercises to use during patrol training in order to help improve your candidates' and patrollers' skiing/riding performance. These skiing/riding drills and exercises will be identified for their primary and secondary focuses to emphasize sound fundamentals and to correct common skill errors. As a ski trainer, your photographic eye will guide you to a conclusion that your trainees have improved or corrected their skill errors, or, that they need continued practice. If these drills and exercises are unsuccessful after initial efforts, it is your responsibility as an NSP Snow sports trainer to suggest that your trainee(s) seek professional instruction from a certified PSIA/AASI instructor. It is not the purpose, nor the responsibility of an NSP Toboggan trainer (without PSIA/AASI instructor credentials) to provide skiing/riding instruction.

Concluding Objectives

The participants will demonstrate:

- Improved skiing and riding evaluation skills
- Recognize personal abilities and limitations as a snow sports trainer

Essential Content: Day 1

Morning Sessions (indoors)

Introduction

- Distribute handouts as appropriate
 - workshop outline
 - educational opportunities available through PSIA/AASI lessons and clinics
 - local evaluation criteria and score cards
- Review program objectives, scope, and limitations. Discuss what patrollers will and will not be able to do upon completion of the course: stress that this training will enhance the ability to execute and coach simple drills and will teach them how to use the local evaluation criteria; however, it does not qualify them as ski/ride instructors unless otherwise certified through PSIA/AASI.

Review Skiing/riding Skills

- Identify and discuss features of skilled skiing/riding. Using a flip chart, list what the group considers to be characteristics of skilled skiing/riding.



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- Distribute a previously prepared list of features (see the *“Instructor Resources”* section below) and compare it to the items the group identified.
- As a group, identify some skiing/riding misconceptions and misleading catch phrases and why they are misinterpreted. The discuss how to look out and describe movements more accurately. See the *“Instructor Resources”* section below.
- Discuss how features of skilled skiing relate to toboggan handling

Morning Sessions (on-hill)

Review Skiing/Riding Skills and Skill Blending

- Review common features of efficient skiing/riding that the group identified earlier
- Begin by having patrollers navigate various types of terrain and snow conditions, varying the skill blend to change turn shape, radius, and speed. Patrollers should simply observe each other, looking for the features of skilled skiing/riding identified earlier.

Begin to Recognize Basic Technique Flaws

- Have patrollers look for obvious flaws in each others’ balance and turn shape (will help with evaluation the next day) during medium-radius turns.
- Have patrollers observe common features of skilled, efficient skiing/riding in the public and each other. They should begin to recognize movement patterns. The clinic leader should demonstrate observational skills by describing what he sees in the skier/riding the group is observing. It is important that the group understands that the sole purpose of this exercise is to *train the eye*; it is not a drill in mechanical analysis.
- Use a line rotation, and pause for observation or work in pairs or small groups. The observational cues (see the *“Instructor Resources”* section below) will be useful.

Afternoon Sessions (on-hill)

Drills and Exercises

- Practice drills and exercises (see the *“Instructor Resources”* section below) stressing fun and proper terrain selection.
- Practice administering drills and exercises.
- Identify common skill errors in performance of exercises.
- Discuss importance of drills and exercises.

Essential Content: Day 2

Morning Sessions (on-hill)

Review Skiing/Riding Skills, Drills, and Exercises

- Review drills and exercises that the group practiced on Day 1.
- Review evaluation process.
- Review local area’s evaluation criteria.
- Practice using evaluation criteria in pairs or groups.

Afternoon Sessions (indoors)

Training Opportunities

- 1) Discuss limitations of knowledge and value of outside training.
 - a) NSP Snow Sports Enhancement Seminars
 - b) Local ski/ride schools
- 2) Identify training materials
- 3) Identify ski/ride improvement resources
 - a) PSIA /AASI clinics and lessons, videos, publications



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Wrap-up

- Provide an opportunity for any questions and answers.
- Collect seminar evaluation forms.

WORKSHOP INSTRUCTOR RESOURCES

Drills and Exercises

Good drills and exercises are effective for improving technique because they demand accurate movements from the skier or rider. The skier/rider receives immediate feedback because the drill is either difficult or easy to perform correctly. A well-rounded skier/rider should be able to perform all of the following drills with equal skill; and, each of the following drills will tend to improve all of the skier's movements. However, as a starting point from the trainer, the following drills have been matched to specific areas of improvement. The broader value of each drill will become clearer with practice.

Drills and exercises are tools to improve basic movement patterns, but it is important to understand that the movement patterns of skilled skiing are dependent upon each other. For example, a skier cannot accurately tip or turn their skis without good balance, and good balance cannot be achieved without a disciplined upper body. Always remember that the sensations a skier experiences from exercises must be applied to actual skiing situations to be of value.

INSTRUCTOR RESOURCE DRILLS– SKIING

These exercises and drills are designed for groomed green and blue terrain. Always start on “easiest” terrain and move to more difficult slopes only when everyone is ready.

- *Strength Sideslip* (with variations including falling leaf, diagonal, etc.). Balance (stance/alignment) and ski-tipping (including flattening) movements

Feet should be comfortably apart—about shoulder width. One foot may be slightly ahead of the other, but ski lead should not affect balance. Hips should generally face the fall line. Gently roll the knees and ankles downhill to release the edges. A slight rise may help. Roll knees and ankles uphill to engage the edges to slow or stop. Practice side slipping straight down the fall line and diagonally forward and backward.

- *Big Toe, Little Toe Turns*
Balance, ski-tipping and turning movements.
This exercise teaches skiers to focus turn initiation at boot and ski level and enhances a simultaneous edge change or parallel turn.

Practice basic parallel turns by rolling the new inside (downhill) ski from the big toe to the little toe and the new outside ski (uphill) from the little toe to the big toe. Focus on the new outside ski first and then focus on the new inside ski. Practice the concept separately before putting it together, especially if skiers have trouble visualizing the movement. Remember, the big toe bites and the little toe is light.



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- *Outside Ski Turns* (sometimes called “stork” turns) Balance, ski-tipping, and turning movements

Transfer weight to the new outside ski *before* beginning the turn and simultaneously lift the new inside ski off the snow slightly. Do this gently and smoothly and keep the ski slightly off the snow until initiating the next turn. If the skier has trouble keeping the ski off the snow, they are probably off balance. Keep practicing until the body learns how to balance on the outside ski and move into the turn. If the skier continues to have problems, have him touch the inside ski tip to the snow.

Observational Cues

Features of skilled skiing:

- balance is dynamic with movements that result in an aligned relationship of the body to the feet
- movements of the upper body are disciplined and provide strength and stability for lower-body movements
- tipping and turning motions of the skis are progressive and originate in the feet and legs
- flexion and extension motions of the legs aid the skier in moving fluidly from turn to turn
- arm and pole movements contribute to balance and flow from turn to turn

Balance - Is the skier leaning uphill? Is there excessive ski lead? Does the skier get "stuck" back over the tails of the skis or appear to be hanging over the ski tips?

Disciplined upper body - Does the skier show excessive shoulder movements, especially at turn initiation? Is the skier following the ski tips with the torso?

Tipping and turning motions of the skis - Is the turn shape round and result in the desired speed? What kind of a track does the skier leave in the snow-is it rounded or zigzagged? Does the skier progressively tip and turn the feet? When and where in the turn can you begin to see the ski bottoms-top of the turn, middle of the turn, or bottom of the turn only?

Flexion and extension - Does the skier have straight legs? Stiff ankles? Excessive knee flexion-"squatty" appearance? Is there excessive bouncing or vertical movement?

Arm and pole movements - Does the pole swing match the intensity of the turn? Is there an exaggerated "planting" action? Are there excessive movements of the arms across the midline of the body? Do the elbows drop behind the torso?

Features of skilled riding:

- dynamic skidded turns enable the rider to control speed and direction via rotation, and flexion and extension
- carving is the added skill which will increase the rider's ability to respond to changes in terrain and trail conditions.

Dynamic skidded turns – Is the rider using his ankles, knees, and hips to guide the snowboard away from the upper body? Is he enhancing the adjustment of pressure along the edge of the snowboard by slowing the rotation of the thighs? Are the lower joints moving independently of the upper body? Can the rider begin to expand the range of motion of the lower joints to move the feet out from under the core of the body?



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Carving - Is the rider rotating slowly with the femur of each leg to enhance the adjustment of pressure along the edge of the board? Is the rider using maximum range of motion of the ankles, while the knees move across the snowboard? Are the lower joints moving independently of the upper body? Is there maximum flexion and extension of the entire leg without the body rising and falling?

Misleading Catch Phrases

Avoiding vague catch phrases is important when talking about skiing and riding performance. Catch phrases tend to be misleading. Review the examples in the outline. It is a valuable learning experience for the group to discuss their understanding of each catch phrase before looking at the clarifications. Clinic leaders may wish to prepare for this topic ahead of time. A flip chart is useful.

Lean forward—really means continue to move forward with the feet and skis to maintain alignment over the feet. Feel the front of your boots with your shins and move into the sides and corners of the boots (toward the center of the turn) throughout turn completion. This is a much more dynamic way to look at forward movement.

Reach downhill with the pole—the "reach" is actually a pole *swing* towards the next turn as opposed to a reach that pulls the body out of position

Don't sit back—use a positive instead; instruct the skier to move their hips up and forward over their feet and keep directing their feet and skis throughout the turn

Face downhill—really means face the direction of travel. The skier's hips and torso will face more downhill in a short turn and less so in a medium and long turn.

Downhill ski—really means the ski that will become the new downhill ski. Stand on the big toe of the new downhill ski before you begin the turn; direct the ski into the and across the fall line. Most skiers do not direct the "downhill" ski until it is in the downhill position.

Don't lean uphill—again, use positive instruction; "don't" gives no alternatives and, without a prescription, the skier has no focus. Try telling the skier to keep the inside ski light. If balanced properly, the skier should be able to pick the inside ski up if necessary.

Don't rotate—tells the skier to begin the turn with the feet; try steering the big toe (and the tip of the ski) down and across the hill.

WORKSHOP INSTRUCTOR DRILLS – RIDING

These exercises and drills are designed for groomed green and blue terrain. Always start on "easiest" terrain and move to more difficult slopes only when everyone is ready.

- *Garlands* (emphasis on turn initiation and finish). Balance (stance/alignment) Torsional Flex to initiate. Flex and extension movements differentiate cross over from cross under.

Athletic stance: always leaving a bit of Flexion or Extension to react to terrain. Begin by twisting the board using torsional flex. (From the heel side) Front foot extends at the ankle as back foot flexes the ankle. The twisting of the board releases the edge under the front foot allowing the board to seek the fall line. As the board enters the fall line the front foot is flexed to engage the heel edge again. (From the toe side) Front foot flexes at the ankle as the back foot extends the ankle. The twisting of the board releases the edge under the front foot



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allowing the board to seek the fall line. As the board enters the fall line the front foot is extended to engage the toe edge again. Repeat the sequence over and over again as you work your way across the hill. This drill emphasizes the turn initiation using torsional flex and turn completion several times in a short amount of vertical space.

- *Spins* (Flat ground spins using torsional flex of the board.)

With an athletic stance, initiate the spin using torsional flex. When the board spins into the fall line set the new edge by twisting the board while relieving the edge set by the back foot. The back foot will then seek the fall line. When the back foot is in the fall line set the new edge by twisting the board while relieving the edge set by the front foot. REPEAT.... Spin both clockwise and counter clockwise.

- *Side Slip, Falling Leaf, and Traverse*

With an athletic stance, vary tilt of the board using small ankle movements to begin sliding and vary the speed of the slide. Do this for a short distance then tilt to come to a controlled stop. Do both toe and heel edges. Add fore or aft pressure and allow the board to slip down with fore or aft movement. Add in a pivot motion to exaggerate the movements. Traverse the hill with a high tilt, holding the edge and riding out the board's carving radius. Vary the Traverse with side slips. Try using front foot twisting motions to steer the board in more of a straight line.

- *Short, Medium, Long radius turns*

Blending the skills learned, work on turn size and shape to control speed. Turn size, is determined by the length of the arc. Turn shape, may be open or closed to fit the desired corridor.

- *Switch.*

Using the same drills for regular riding, challenge your students to ride switch. Switch riding should be practiced regularly, landing air 180's, require you to manage switch riding.

Additional Ski Trainers Resources

On snow

- NSP Skiing Enhancement Seminar
- NSP Senior or Certified Training Programs
- PSIA ski lessons

Publications (available through NSP catalog)

- *Outdoor Emergency Transportation: Principles of Toboggan Handling*
- *Instructor Pocket Guide, to accompany OET*
- *PSIA-AASI Core Concepts for Snowsports Instructors*
- *PSIA Alpine Technical Manual: Skiing and Teaching Skills*
- *AASI Snowboard Manual*
- *PSIA Alpine Movement Assessment Pocket Guide*
- *PSIA Nordic Technical Manual*



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Videos

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TOBOGGAN TRAINERS WORKSHOP (TTW)

[\[TOP\]](#)

TARGET USERS: NSP certified Transportation Program instructors

FREQUENCY: As needed

SEMINAR COORDINATOR: NSP Transportation Program instructor in cooperation with NSP division Transportation Program advisor.

SEMINAR INSTRUCTOR: Most currently calibrated Toboggan IT.

SEMINAR INSTRUCTOR REQUIREMENTS

- Qualified, *screened*, and certified instructors in good standing and appointed by NSP Division or Region Supervisor.

SEMINAR GOALS

- Improve evaluation skills of NSP Transportation Program instructors
Give NSP trainers a means to develop a photographic eye using observational cues to assist them in training toboggan operators with emphasis on Toboggan handling at Alpine Patroller, Alpine Senior or Instructor Trainer levels.

SEMINAR COST: Direct costs associated with conducting the seminar.

RECOMMENDED CLASS SIZE: Up to six trainees per trainer.

HOW TO ORGANIZE A TOBOGGAN TRAINERS WORKSHOP

1. *Register the seminar:* Contact the NSP National Education Department before conducting the clinic.
2. *Schedule the seminar:* Get permission from area management to host the seminar.
3. *Select seminar instructors:* Contact the division Transportation Program supervisor to identify qualified staff and to notify of intent to conduct a seminar.
4. *Develop the curriculum, and emphasis:* Instructor of record should review the skill components in *Outdoor Emergency Transportation: Principles of Toboggan Handling* for inclusion in the program.
5. *Establish seminar objectives:* Use the general principles and objectives found in *Outdoor Emergency Transportation: Principles of Toboggan Handling*. (A seminar may focus on a single aspect of toboggan handling, multiple skills, and/or varying terrain. A detailed program outline and complete lesson plan including skills to be taught and evaluated, procedures for validation of skills, instructor staff, other pertinent safety and risk management information, and evaluation surveys should be readily available and on file upon request.)
6. Advertise the workshop to the appropriate audience.
7. Submit Course Completion Record to national office within two weeks of close of course.

CREDENTIAL AWARDED TO PARTICIPANTS UPON COURSE COMPLETION

- NSP Certificate of Achievement
- Attendance records submitted to the national office will be input into the member records.

NSP TOBOGGAN TRAINER WORKSHOP INSTRUCTOR NOTES

The purpose of the Toboggan Trainer's Workshop is to give NSP trainers a means to develop a photographic eye using observational cues that will help you:

- **Improve Toboggan Evaluation Skills:** As a toboggan trainer, your ability to see and hold a mental picture of a toboggan run at any given moment allows you to provide



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positive feedback and help candidates and patrollers improve their performance. Being able to recognize basic flaws can only be acquired by practice and experience. The Toboggan Trainer's Workshop is designed to help you, as an NSP trainer, identify what good toboggan handling skills look like and develop a photographic eye that will enable you to remember your trainees' performance long enough to analyze their technique. This workshop is not intended to turn Toboggan trainers into ski instructors.

Recognize Your Abilities and Limitations as a Toboggan Trainer: During the Toboggan Trainer's Workshop your evaluative skills will improve by developing a basic understanding of features present in good toboggan handling. With this understanding, you will learn and practice basic drills and exercises to use during patrol training in order to help improve your candidates' and patrollers' toboggan handling skills. As a toboggan trainer, your photographic eye will guide you to a conclusion that your trainees have improved or corrected their skill errors, or, that they need continued practice. If these drills and exercises are unsuccessful after initial efforts, it is your responsibility as an NSP Toboggan trainer to suggest that your trainee(s) seek professional instruction from a certified PSIA instructor, or continued education by authorized toboggan Instructor Trainers. It is not the purpose or the responsibility of an NSP Toboggan trainer (without PSIA instructor credentials) to provide skiing instruction.

Concluding Objectives

The participants will demonstrate the ability to:

- Improve toboggan-handling teaching and evaluation skills
- Recognize your abilities and limitations as a toboggan trainer

Essential Content: Day 1

Morning Sessions (indoors)

Introduction

- Distribute handouts as appropriate
 - workshop outline
 - local evaluation criteria and score cards
- Review program objectives, scope, and limitations. Discuss what patrollers will and will not be able to do upon completion of the course: stress that this training will enhance the ability to execute and coach simple drills and will teach them how to use the local evaluation criteria; however, it does not qualify them as ski/ride instructors without proper PSIA/ AASI credentials.

Review Toboggan Handling Skills

- Identify and discuss proper use of the Toboggan as outlined in the Outdoor Emergency Transportation Principles of Toboggan Handling guide
- ~~Identify and discuss some misconceptions and common phrases and why they~~
- Discuss how features of skilled skiing/riding relate to toboggan handling

Morning Sessions (on-hill)

Review Skills and Skill Blending

- Review standards for Alpine Patroller, Alpine Senior patroller or Certified Patroller, depending on the level of instruction being presented.
- Review the local equipment i.e. Cascade 100, SS cruiser, Gear packs etc.
- Begin by having patrollers teach various toboggan maneuvers. Note the demonstrations provided and progressions used.

Begin to Recognize Basic Technique Flaws

- Have patrollers look for obvious flaws in each others' use of toboggan handling skills.
- Determine whether the skills fit the criteria for Alpine Patroller, Alpine Senior Patroller, or Certified Patroller.



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Afternoon Sessions (on-hill)

Unloaded Toboggan delivery.

- Have a participant teach and demonstrate the skill.
- Was the demonstration up to the level being recertified?
- Did they communicate effectively with the accident scene patrollers?
- Was the toboggan delivered safely.

Lead Toboggan Operator with Rear Operator.

- Have a participant teach the responsibilities of Lead and Rear Operator positions, and demonstrate proper toboggan operation.
- Was the demonstration up to the level being recertified?
- Was the speed appropriate for the terrain?
- Was the speed consistent?
- Did they communicate clearly with the Rear Operator?
- Did they select the best route?
- Were traverses crisp with minimal downhill progress?

Essential Content: Day 2

Morning Sessions (on-hill)

- Review drills and exercises that the group practiced on Day 1.
- Review evaluation process.
- Review local area's evaluation criteria.

Lead Toboggan operator alone.

- Have a participant teach the responsibilities and demonstrate the Lead Operator position without a Rear Operator. (Senior or IT recertification/recalibration only)
- Was the chain break deployed or in ready mode with a release in hand?
- Inside or outside the handles discussion.

Toboggan Recovery maneuver.

- Have a participant teach and demonstrate the Toboggan Recovery maneuver.

Afternoon Sessions (outdoors)

Review and wrap up practical exercises

- Did all participants get the opportunity to teach and evaluate the performance of others?
- Do all participants have an understanding of the level of expertise required for Alpine Patroller, Alpine Senior Patroller, or Certified Patroller?

Wrap-up (indoors)

- Provide an opportunity for any questions and answers.
- Provide feedback on Re-certification.
- Collect seminar evaluation forms.

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