

Eastern Division National Ski Patrol

# Certified Program Operations Manual

Adopted 4-2-2016

The purpose of the Certified Program Operations Manual is to set forth the individual components and testing objectives of the 6 modules of the Eastern Division Certified Test. It is intended to be distributed to the examiners as well as to potential candidates in order to provide a descriptions and expectations for the various components of the exam. It is anticipated that this gives the candidate an opportunity to properly prepare for the exam. A manual alone cannot adequately prepare somebody for this test. It is anticipated that in addition to a review of this manual that a candidate will spend considerable time with certified patrollers and other ski industry professionals to acquire a sufficient knowledge base to be successful in completing the 6 modules.

As set forth in the final section of the Eastern Division Certified By-Laws it is the intention of this manual to comport generally with the National Ski Patrol Certified Program Guide, the National Ski Patrol Policies and Procedure Manual and the National Ski Patrol By-Laws.

## **Module 1: Area Operations and Risk Management**

The Area Operations and Risk Management module consists of two separate stations conducted as interviews. The two stations should be staffed by at least three (3) Certified Examiners each. Each team should consist of at least one examiner with experience in patrol management, as a mountain manager, or with interviewing. Each interview should last approximately 45 minutes.

### **The Risk Management Interview**

This interview will be conducted outside, either on the hill on skis, around a lift terminal, in the base area or a combination of all three. The focus of this portion of the exam is to determine if the candidate is aware of potential problems that can arise at a ski area, has the ability to identify them and can provide a viable solution to eliminate them. The candidate's ability to think quickly, effectively and creatively will be assessed at this station.

The questions asked of a candidate can include, but are not limited to following categories:

- Hazards, manmade and natural (signage and marking)
- Opening and closing procedures
- Snowmaking
- Lift operations (ANSI codes)
- Grooming
- Accidents and accident investigations
- Safe skiing programs
- Risk management\*
- Laws governing ski area operations
- Mass casualty plan

*\* Risk management should be the focal point of this portion of the exam. The candidate should be*

*prepared to discuss this subject from a pre and post loss perspective, as well as the accident and incident investigation in detail. The who, when, why, and how of ski area operations.*

**Scoring** - Using the 1-10 scale, the candidate will be scored on their knowledge of ski area operations and risk management and their ability to think through the presented hypothetical problems. The candidate must score an average of 8 from the three examiners

## **The Patrol Management Interview**

This interview will be conducted inside, preferably in a quiet area conducive to holding an interview. The focus of this portion of the exam is to interview a candidate applying for the position of Patrol Director. The candidate will be expected to budget, staff and equip a patrol. They should be provided with a map of a ski area that they will be expected to staff and equip. They will also be expected to discuss in detail any of the following issues/categories:

- Personnel (Pro-Volunteer)(compensation)
- Equipment (sleds, evac, radios, etc.)
- Mountain coverage
- Trail opening, closing procedures
- Patrol management (administration)
- Communications
- Patrol image
- Patrol relations with other departments
- Supplies
- Training
- Lift evacuation
- Accident reports
- Director compensation
- Mass Casualty Plan

The interviewing team should be provided with a copy of the candidate's Certified application for reference.

**Scoring** - Using the 1-10 scale, the candidate will be scored on their knowledge of patrol procedures and the candidate's working knowledge, experience and philosophies of patrol operations. The candidate must score an average of 8 from the three examiners.

## **Module 2: Avalanche Management**

The Avalanche Management module will be a four-part process in succession as follows. The candidate must complete in order:

1. The candidate will present the Avalanche Chair with of Level 1 Certification prior to the

Certified exam.

2. A 25-question written exam of a grade of at least 80%.
3. An interview conducted as if the candidate is going out west with a group of friends who intend to ski “out of bounds”. They count on you as a patroller to advise them about the dangers. The candidate will be expected to be familiar with the equipment used to diagnose snow conditions, the use of rescue beacons and other equipment used in avalanche search and rescue operations. The candidate will also be required to discuss personal avalanche safety and avalanche awareness as outlined below.
4. A beacon search conducted outside. The candidate will be required to find two rescue beacons buried in the snow in a predetermined length of time, usually five minutes. Prevailing snow pack conditions may require that this time is adjusted.

For the Interview (#3 above), information that will be covered:

- Equipment – Transceiver, probe, shovel, inclinometer, compass, topo maps, snow saw, rope, Avalung, Air Bag, etc.
- Avalanche Awareness – Verbal questions from Avalanche Level 1 curriculum (including vocabulary, hazards, weather, snowpack, terrain).
- Personal safety and travel\*

\*For the personal safety and travel section you will have to bring with you:

- 3 consecutive avalanche forecasts from a region you might travel in, as well as a map and trip plan of a particular tour in the area. You will be asked about trip planning, route selection, interpreting forecasts and general snow/weather/terrain information regarding your plan. You may be asked to draw on your decision making ability as the examiner may present you with particular information about weather, snowpack, or terrain that would affect your trip.

**Scoring:** The section above is scored on a 1-10 scale. The candidate must score an average of 8’s from each of the two examiners to move onto the beacon search.

### Highly Recommended resources:

- American Avalanche Association [www.avalanche.org](http://www.avalanche.org)
- National Avalanche Center [www.fsavalanche.org](http://www.fsavalanche.org)
- Snow Sense by Jill Fredston and Doug Fesler (\$7 in NSP catalogue)
- Staying Alive in Avalanche Terrain by Bruce Tremper (\$19 in NSP catalogue)
- Article on the Tunnel Creek Avalanche of 2012: [www.nytimes.com/avalanche](http://www.nytimes.com/avalanche)
- NSP Avalanche Rescue Fundamentals (\$14 in NSP catalogue)

### Other Resources:

- Snow, Weather, and Avalanches: Observational Guidelines for Avalanche Programs in the United States (available online at avalanche websites above)
- The Avalanche Handbook by David McClung and Peter Schaerer (\$20 in NSP catalogue)
- The Avalanche Review: A publication of the American Avalanche Association (\$30 subscription)

## Module 3- Emergency Care

The Emergency Care module of the Certified Program consists of three (3) separate stations.

1. Written
2. Bystander Problem
3. Practical Problems (3)
  - a. One problem as the leader
  - b. Two problems as a helper

### Written Exam

The Written portion of this section should be held in a quiet area conducive to taking a written exam and large enough for the candidates to be able to have enough room to work. The written portion should be administered in the form of essay questions that require the candidate to describe the procedures involved in solving a difficult scenario. Possible subjects include, but are not limited to the following:

- Organizing a mass casualty plan
- Answering specific questions about a written scenario
- Develop a written solution to an emergency care scenario

**Scoring:** Scoring at this station is pass / fail

### The Bystander Problem

The Bystander Problem consists of a simulated accident scenario involving an emergency care problem that will require assistance from one or more untrained bystander(s). The candidate will successfully direct untrained bystander(s) in the delivery of emergency care in a multiple injury/illness incident involving one or more patients.

The Bystander Problem should be staffed by at least three (3) Certified examiners. At least two examiners should have experience in examining emergency care scenarios and be familiar with documenting the candidate's performance using a time line so that their results can be discussed with them at the end of the day.

**Scoring** - Using the 1-10 scale, each candidate should be scored on decision making, leadership, problem management, resource management, awareness of ski area operation issues and OEC

performance. The candidates must score an average of 8 from the three examiners.

### **The Practical Problems**

The Practical Problems consist of three simulated accident scenarios involving multiple injury/illnesses and multiple patients. Certified candidates will be assigned in groups of three by the Certified OEC Chairperson or their designate. The candidates should consolidate any equipment that they require and spend some time discussing any differences in procedures. Each candidate must participate in the role of a leader once and as a helper twice.

The Practical Problems should be staffed by at least three (3) Certified examiners. At least two examiners should have experience in examining emergency care scenarios and be familiar with documenting the candidate's performance using a time line so that their results can be discussed with them at the end of the day.

**Scoring** - Using the 1-10 scale, each candidate should be scored on decision making, leadership, problem management, resource management, awareness of ski area operation issues and OEC performance. The candidate must score an average of 8 from the three examiners on his/her leader problem. The candidate must also score an average of 8 on all three problems combined.

## **Module 4- Lift Evacuation and Rope Management**

The Lift Evacuation and Rope Management module of the Certified Program consists of two separate stations

1. Lift Evacuation
2. Low Angle Rescue

### **Lift Evacuation**

The Lift Evacuation Station will test the candidate's working knowledge of a lift evacuation. The candidate will explain the procedures taken after a lift evacuation is called including setting up their evacuation equipment. (There will be no lowering of people from the chairlift). They will be required to demonstrate specific practical skills, which include hands on demonstration and explanation of their lift evacuation gear.

The Lift Evacuation Station should be staffed by at least three (3) examiners, at least two of which have experience with their mountain's lift evacuation refresher.

Examiners will score the candidates performance by the following guidelines:

- Safety
- Knowledge of procedures (lockout ...etc.)
- Knowledge of equipment
- Precautions

- Dilemmas (chair on sheaves, over water ... etc.)
- Equipment inspection and storage
- Post evacuation procedures
- Rope handling
- Belay techniques

**Scoring:** this station is Pass / Fail

## Low Angle Rescue

The Low Angle Rescue Station consists of two parts

1. Knot tying (indoor station) - Candidates must properly tie the above knots to advance to the outdoor station.
  - a. Bachman
  - b. Prussik
  - c. Figure 8
  - d. Double Fisherman's
  - e. Waterman's knot
  - f. Bowline
  - g. Munter Hitch
2. The practical application of low angle rescue consists of setting up the raising and lowering system. It will incorporate the ropes, knots carabiners, slings, anchors, safeties and litters.
  - a. The candidate will be required to set up a raising and lowering system and explain to the examiners all that they are doing.
  - b. The candidate will put the hasty seat on them self and explain its uses at the litter as a tender and on the lowering.
  - c. The candidate will have to do the lowering as if a rescuer were attached, tie it off, and then set up the Z-drag system.
  - d. Once the system is set up, the candidate will have to show the examiners that the system works by pulling the litter up.

The Low angle rescue station should be staffed by at least three (3) Certified examiners, at least one of which has a background in climbing.

- Stepping on the rope or slings is an automatic fail and the system has to work to pass.

Examiners will look for proper setup and use of:

- Stout anchor with sling and carabiner around it
- All carabiners locked
- Rope threaded through carabiners properly
- Rope secured to litter or sled with slings, carabiners, and figure 8 knot

- Prussik knots in right places
- Bachman knots in right places
- Slings on litter for two rescuers
- Hasty seat on candidate
- Figure 8 descent device attached or Munter hitch used
- Mechanical Advantage 3:1 system setup and operational

**Scoring:** this station is Pass / Fail

## Module 5- Skiing

The ski / ride components of the Certified program are as follows:

1. Crud ski/ride
2. Groomed ski/ride
3. Mogul ski/ride
4. Steep ski/ride
5. Snowplow
6. Sideslip
7. Equipment Carry

**Crud ski / riding** - Certified candidates will be expected to ski/ride any slope under almost any type of snow condition. If crud, powder, or icy conditions exist only in isolated places along the side of the slope, the instructor may create a corridor and ask the Certified candidates to ski/ride within it. The candidate should be able to handle the conditions in a stable aggressive manner with style and confidence. Skier/Rider should be able to stop within a short distance at any time. Turns may be short, medium, or long radius. Candidates should avoid long traverses and focus on continuously turning as they progress down the hill.

**Groomed skiing/riding** - The candidate will ski/ride a relatively smooth expert trail using a combination of long, medium, and short radius turns as appropriate to the terrain. The candidate will demonstrate a high level of technical ability combined with personal style. This should be the type of run made while free skiing/riding in a patrol parka. The image created should instill confidence in the skiing/riding public.

**Mogul skiing/riding** - The candidate should ski/ride this run under complete control at a speed that demonstrates self-confidence and ability. The candidate should demonstrate linked turns, consistent speed, fall line decent, and minimal traversing.

**Steep skiing/riding** - The candidate will ski/ride a very steep slope with stability and aggressiveness. The candidate should demonstrate effective technical ski/ride skills, controlled speed, minimal sideslip, and minimal traversing.



**Snowplow** - will be held on a moderately steep, moguled slope on a course consisting of a series of left and right gates and a fall line corridor. The candidate will demonstrate a fluid and controlled snowplow in a balanced and stable position. Skiers will demonstrate edge control maintaining pressure on both edges throughout the course. Riders will demonstrate edge control maintaining pressure over the heel side of their board without falling or sitting down at any time throughout the entire course. Their speed will be appropriate for the terrain and that speed will remain constant throughout the course. In the corridor, the candidate will demonstrate a fall line snowplow, showing balance, stability and equal weight distribution, while maintaining a constant speed. At the end of the corridor the skier candidate will perform a definitive stop using either a snowplow or hockey stop. At the end of the corridor the rider candidate will perform a definitive stop by coming to a complete stop without falling or sitting on the ground.

**Sideslip** - will be held on a steep, moguled slope on a course consisting of a series of gates requiring forward and backward sideslip and two fall line corridors requiring straight descent sideslip. The candidate will demonstrate a stable and balanced sideslip using proper edge control to maintain an appropriate and consistent speed throughout the course. The candidate will demonstrate the ability to clear built-up snow when necessary. Once in the corridor the candidate will remain within the confines of the corridor and in the fall line, demonstrating proper balance and edge control. At designated points, usually identified by double poles, the skier candidate will demonstrate a kick turn. The rider candidate will demonstrate a transition turn (in place of a kick turn) with minimal loss of elevation, not going beyond the determined area allowed for this maneuver. The candidate will remain stopped until instructed to continue.

**Equipment Carry** - will be held on a steep, moguled slope. The candidate will demonstrate the ability to ski/ride in a stable, safe, and confident manner while carrying some patrol equipment. The candidate will demonstrate proper technique using short, medium, and long radius turns when appropriate. The candidate's speed should be appropriate for the terrain and remain constant throughout the run. Turns should be in the fall line with a minimum of traversing or stopping.

**Scoring** - Using the 1-10 scale the candidates will be scored in all seven events and must score a minimum of 336 points to be successful in the skiing/riding events. To compile scores, the high and low examiner scores for each candidate in each event will be eliminated leaving 6 examiners scores to be tallied. For example: 6 scores X 8 (score given by each examiner) = 48 points times 7 events = 336 points. It is possible for a candidate to score low in one event and high in another and still be successful in the skiing/riding module.

Examiners chosen for the skiing/riding event will be chosen by the skiing/riding chairperson and should consist of a team whose ski/ride skills are at a consistently high level.

## Module 6- Toboggan

The toboggan components of the Certified program are as follows:

1. Unloaded Toboggan
2. Loaded Front
3. Loaded ski/ride skills

**Unloaded Toboggan** - will be held on a steep, moguled trail. The sled in this event should be run in an expedient and controlled manner, maintaining consistent speed. Route selection, mental alertness, skier/rider traffic awareness, and good judgment will be evaluated. An approach to a simulated patient may be implemented, or an examiner may call a stop at any time during the candidate's run. With any of these scenarios the candidate must execute a stop so as not to endanger or give the appearance of potential endanger, or further injury to the patient or skier / rider traffic. The sled must be brought to a complete stop and a securing method (if required) should be demonstrated.

**Loaded Front** - The sled should be transported as if the patient has a very painful NON-life threatening injury and will be held on a steep moguled slope. The candidate will demonstrate a controlled expedient run maintaining consistent speed appropriate to the terrain and to the patient's injury throughout the run. The ride should be smooth so as not to cause patient discomfort. The candidate will demonstrate mental alertness, proper route selection, skier / rider traffic awareness and good judgment. Jerking, bumpiness, continual stopping, pulling the sled, twisting or loss of sideways control is not acceptable. *The patient riding in the toboggan will be a registered NSP member. No other persons are allowed to ride in a toboggan during a Certified Event. The Certified Chairman must specifically authorize any exceptions for other than NSP members riding in the sled.*

**Loaded ski / ride skills** - The sled will be run as if the patient has a very painful NON-life threatening injury and will be held on a steep moguled slope. There will be a series of left and right hand gates and a fall line corridor. The candidate will demonstrate appropriate technique for the terrain. The course will be negotiated with appropriate and consistent speed. During the traverse there will be only a minimal sideways slipping of the sled. While in a corridor the candidate will demonstrate a minimum of 6 changes of direction starting either with a left or right transition maintaining consistent speed and keeping the sled in the fall line. Depending on conditions and terrain there maybe one or two corridors throughout the course. If more than one corridor is scheduled the transition count will be adjusted accordingly (For example; a minimum of 3 changes of direction starting with a left or a right transition in each corridor). *The patient riding in the toboggan will be a registered NSP member. No other persons are allowed to ride in a toboggan during a Certified Event. The Certified Chairman must specifically authorize any exceptions for other than NSP members riding in the sled.*

**Scoring** - Using the 1-10 scale the candidates will be scored in all three events and must score a minimum of 144 points to be successful in the toboggan events. To compile scores, the high

and low examiner scores for each candidate in each event will be eliminated leaving 6 examiners scores to be tallied. For example: 6 scores X 8 (score given by each examiner) = 48 points times three events = 144 points. It is possible for a candidate to score low in one event and high in another and still be successful in the toboggan module.

Examiners chosen for the skiing / riding event will be chosen by the skiing / riding chairperson and should consist of a team whose ski / ride skills are of a consistently high level.

## Overall Exam Results / Scoring

All scoring is complete and final at the end of the annual exam. Any scoring changes require the involvement of the Certified Chairperson; the Chairperson of the module in question and all examiners directly involved with the dispute and must be resolved before the end of the annual exam.

## Examiners

**Section 1** All examiners shall come from the general membership; however others may be included with the concurrence from the Committee Chair and the Certified Chairperson

**Section 2** Examiners for both Ski and Toboggan and Emergency Care shall first serve as candidate examiners for a period of time determined by the respective Chairperson and the Certified Chairperson

**Section 3** A PSPA examiner, in good standing, may serve after being admitted as a Certified member and approved by the Chairperson.

**Section 4** Ski and Toboggan and Emergency Care Examiners must attend a Certified Examiners Clinic

**Section 5** To become an Emergency Care examiner in the Certified program:

- Should be an OEC instructor
- Should serve as an injured person for one exam
- Should serve as an examiner candidate for at least one season
- Should serve as an examiner for at least two seasons before serving as the lead examiner
- Should be a Certified member

## Reciprocity

**Section 1** PSPA members in good standing may apply for National Ski Patrol reciprocity. They must submit an application, have it approved, and attend the Spring Examination. Here they must pass all sections agreed to as non-reciprocal in a joint meeting of the PSPA and the NSP at Mount Snow

Vermont December 7, 1995. (See attached agreement). In order to become Certified they must join the National Ski Patrol.

## **Amendments**

**Section 1** Amendments to this Program Guide may be made at any annual meeting, following written notice to the membership in good standing of the proposal at the time of notification of the annual meeting. An amendment must be approved by a two-thirds affirmative vote of those present and eligible to vote and written proxies limited to one per member present.