



# Industry Training Program Avalanche Search & Rescue Practical Skills Assessment Student Guidelines

## *Introduction*

The Avalanche Search & Rescue (AvSAR) Advanced Skills evaluation process is comprised of two components - *Theory* and *Practical Skills Assessment (PSA)*.

AvSAR Theory is assessed by a final written exam and has a combination of multiple-choice, matching, and short answer questions. Students must achieve a mark of 71% or higher to pass the written exam.

The practical skills assessment (PSA) is the technical skills component of evaluation process and held on the final day of the AvSAR course. Students are welcome to ask instructors questions they have regarding the AvSAR PSA during the course, and are given time to practice these skills throughout the course in preparation for their assessment.

The practical skills assessment involves three evaluation sites where candidates are randomly assigned to one of the sites. In other words, candidates must train for *all* exam scenarios but will only be assessed on *one* of them.

Students that successfully complete both the written and practical exams will receive an Avalanche Search and Rescue Advanced Skills Course Certificate upon completion of the course.

## *Important Information*

- Each candidate will need to complete one rescue scenario as the Incident Commander within a given time frame.
- Candidates must also act as a helper on up to three other rescue scenarios. They may be evaluated on their excavation and probing techniques at that time.
- There are three possible rescue scenarios involving either a multiple burial in close proximity, multiple in very close proximity, or deep burial situation.
- Each scenario assesses the candidate's technique, organization, ability to direct helpers, overall time, triage decisions, and ability to answer fundamental scenario questions.
- Exam evaluators will act as the witness and can answer any scenario-based questions candidates may have. There is one evaluator per rescue scenario.
- Each candidate will have two helpers who will need direction and will only do what they are asked. The helpers have limited skills and are only allowed to assemble probes and shovels and to probe and dig as directed.
- Candidates must talk their way through the scenario (for example: notify the evaluator when they find visual clues and when they detect a close proximity, very close proximity, or deep burial situation. The evaluator may provide the candidate with additional information at that time.
- Candidates must also notify the evaluator when they have a probe hit. If the snowpack is very shallow, the evaluator will call out the burial depth.
- Overall time begins once the witness interview has been completed and ends when the 2<sup>nd</sup> target has been excavated AND all transceivers have been located.
- As the site is being re-set, candidates will be asked up to 6 questions relating to the scenario (e.g. specifics on the search technique used, triage decisions made, and mental map information obtained).
- Candidates can expect to spend the full day on site and therefore should have sufficient warm clothes, food and drink.
- **If the candidate is unsuccessful, the candidate may have the option to be retested on the same day at no extra cost (dependant on instructor time and availability during the PSA exam day). Should the student choose to postpone their retest to a later date, the student is responsible for contacting the CAA in order to arrange for another exam, and this will incur additional costs. Should the student be unsuccessful on their retest, the student must re-take the course in its entirety.**

## Layout

- The area of the exam is roughly 1600m<sup>2</sup>. The avalanche area will be obviously marked by ski or foot tracks and possibly flagging tape. It may be in a forest or open area.
- The exam will begin out of the signal range and usually out of sight of the avalanche area. The candidate being assessed is known as the Incident Commander (IC)

## Areas observed for each category being assessed

Below are specific steps that evaluators are looking for during the practical skills assessment. The steps are broken down by category, as they are listed in the marking rubric (refer to next page).

## Technique

- Demonstrates avalanche search technique:
  - Visualizes the terrain and employs an effective strategy for the signal search.
  - Search strategy conclusively eliminates terrain from future need to search again.
  - Coarse search identifies point at which point signal(s) are engaged (notifies evaluator of this point).

### MENTAL MAP

1. Demonstrates understanding and use of a mental map while conducting transceiver search
  2. Determines how many signals are heard or seen on the screen
  3. Determines the distance indication on the screen
  4. Conducts a 10 and 3 metre sound check
- Switches to appropriate alternate search strategy if marking function failed OR is not available.
  - Fine searches effectively and minimally.
  - Employs effective spiral probing technique in the pinpoint search. Probing 90 degrees to snow surface. Confirms strike prior to directing helpers.
  - Applies advanced excavation techniques.
  - Carries on with coarse search looking for more buried subjects.
  - Applies triage strategies based on snow depth, medical conditions, and evacuation priority.
  - Demonstrates a final signal search and then ensures that all searchers go back to send.
  - If errors are made, they are quickly recognized and corrected.
  - Based on a 2<sup>nd</sup> party arriving on scene with wands, applies or describes appropriate wandings of the avalanche scenario.

## Organization

- Manages the scene safety.
- Interviews the witness and obtains essential information about victim numbers, last seen point, time of occurrence, human or natural trigger, # of transceivers, and so on.
- Calls base with the appropriate emergency response level and includes details about location, time, number of victims, type of incident, and weather. Base has enough information to respond effectively. CAA ITP Emergency Response Plan is used.
- Activates additional resources as required.
- Manages available on-site resources:
  - Checks that all transceivers are switched to SEARCH.
  - Directs helper(s) to assemble probes and shovels.
  - Directs helper(s) in probing and strategic shovelling appropriate to the situation.

**Note: The clock starts running at the end of the witness interview and stops once the 2<sup>nd</sup> subject has been excavated and exposed AND all transceivers have been located.**

*AvSAR Practical Skills Marking Rubric*

<b>CATEGORY</b>	<i>Exceeds Requirements</i>	<i>Fully Satisfactory</i>	<i>Partially Meets Requirements</i>	<i>Does Not Meet Requirements</i>
<b>Technique</b>	<p>Very good technique.</p> <ol style="list-style-type: none"> <li>1) Always applies effective signal, coarse, and fine search for multiple burial scenario.</li> <li>2) Develops appropriate logistical, organizational, and search tactical conclusions from a mental map.</li> <li>3) Applies exceptional probing and advanced excavation techniques.</li> <li>4) Clear and concise directions to helpers.</li> <li>5) Quickly applies appropriate triage during the search and according to the condition of the subject.</li> <li>6) Entire search area has had a transceiver scan.</li> <li>7) Errors are not evident, if any.</li> <li>8) Wanding is applied correctly.</li> </ol>	<p>Good technique.</p> <ol style="list-style-type: none"> <li>1) Consistently applies effective signal, coarse, and fine search for multiple burial scenario.</li> <li>2) Some minor errors made in applying appropriate logistical, organizational, and search tactical conclusions from a mental map.</li> <li>3) Applies efficient and effective probing and advanced excavation techniques.</li> <li>4) Concise directions to helpers.</li> <li>5) Applies appropriate triage during the search and according to the condition of the subject.</li> <li>6) Entire search area has had a transceiver scan.</li> <li>7) Makes minimal errors in the search process; recognizes errors made and corrects them early.</li> <li>8) Wanding is applied correctly.</li> </ol>	<p>Fair technique.</p> <ol style="list-style-type: none"> <li>1) Minor gaps in the signal, coarse, or fine search.</li> <li>2) May not immediately identify a multiple burial scenario and/or inconsequential errors in applying an alternate search mode. May get slightly distracted and search some terrain twice.</li> <li>3) Probing and excavation need slight refining but otherwise effective.</li> <li>4) Clear direction to helpers.</li> <li>5) Triage decisions not ideal but functional.</li> <li>6) Entire search area has had a transceiver scan.</li> <li>7) Errors are not critical; recognizes and corrects errors promptly.</li> <li>8) Wanding is mostly applied correctly with minor omissions.</li> </ol>	<p>Poor technique.</p> <ol style="list-style-type: none"> <li>1) Inconsistent application of signal, coarse, or fine search.</li> <li>2) Delayed recognition of multiple burial scenario. Inconsistent application of alternate search strategies.</li> <li>3) Ineffective probing and excavation.</li> <li>4) Unclear and/or too few directions to helpers.</li> <li>5) Triage decisions incorrect and would result in greater loss or loss of life/limb.</li> <li>6) Much terrain has not had a transceiver scan.</li> <li>7) Makes frequent mistakes and does not correct errors effectively. These errors may be critical.</li> <li>8) Wanding is not applied appropriately or correctly.</li> </ol>
<b>Organization</b>	Exceptional organization. Covers all the elements of organization listed above.	Organized. Covers most of the elements listed above. Any omissions will not significantly affect the rescue outcome.	Slightly disorganized. Many elements listed above are missing; however, the rescue still may have a successful outcome.	Disorganized. Many if not all the elements listed above are missing. Significant omissions that compromises the rescue outcome.
<b>Overall Time</b> Time limit is approximate and is adjusted according to site conditions.	Takes 11 minutes or less to locate all transceivers and to excavate two of them.	Takes 11-13 minutes to locate all transceivers and to excavate two of them.	Takes 13-15 minutes to locate all transceivers and to excavate two of them.	Takes >15 minutes to locate all transceivers and to excavate two of them.
<b>Other</b>	Answers all questions accurately and correctly.	Answers all questions correctly with minor inaccuracies.	Answers most questions correctly with minor inaccuracies and/or omissions.	Answers minority of questions correctly with significant inaccuracies and/or omissions.

*Minimum requirement in order to pass the exam:*

In the Technique category, each bullet is worth 1 point. Candidates must obtain a minimum of 6 out of 8 points to achieve a certain level of competency (e.g. Fully Satisfactory vs Partially Meets Requirements)

Candidates must obtain a minimum of “Fully Satisfactory” in two out of four categories in order to pass. There can be no “Does Not Meet Requirements” in any category in order to pass.