



International Commission for Alpine Rescue

Avalanche Commission Recommendation Organized Avalanche Rescue Probing Strategies

Recommended Probe Specifications

ICAR recommends that avalanche rescue probes for rescue teams be at least 3 meters long and meet UIAA SafeCom 157 standards.

Search Procedure to Maximize Survival Chances and Minimize Risks

To optimize search efficiency for teams and enhance survival prospects for missing persons the following procedure is recommended. These techniques are used by organized rescue agencies looking for missing person(s) in avalanche debris not wearing an avalanche transceiver, damaged transceiver or a transceiver not turned on. Risk assessments should be completed by teams prior to rescue team members being placed on a slope. These risk assessments may include assessments to overhead hazard, site safety (crevasses, cliffs, icefall) and other localized hazards.

Techniques:

1. **Spot Probing** - During the initial phase of a response or when resources are limited. Focus probing efforts on obvious terrain traps and areas surrounding surface clues.
 - o Probing to a depth of 1.5m in identified/likely areas.
 - o Consider removal of skis to ensure good probing strategies if conditions allow.
2. **Coarse Probing with 50cmx50cm grid spacing**- Formed with 6-10 probers to maintain effective control. First probing pass to 1.5m depth and second pass with lateral and forward offset to 2.5m or greater depth.
 - a. Two commonly accepted techniques for organized probe lines are "**Slalom Probing**" and "**Three hole per step**". Select the one that best suits the situation. For more information, see references:
3. **Fine Probing with 25cmx25cm grid spacing**- Initiate after two passes of Coarse probing. Include adjacent areas, probing to a depth of at least 3m or the depth of the probe.

- a. Systematic and thorough probing of the avalanche debris is essential.

Marking of areas Probed - Refer to ICAR REC L 0003 E Marking of locations on an Avalanche

Additional Considerations:

- During Coarse and Fine Probing the probe should be held in a vertical orientation as opposed to perpendicular to the snow surface.
- Suspected probe strikes by a probe line member should be indicated to the probe line leader with a loud verbal confirmation. Leave the probe in place to allow additional probing and shovelers a depth and location to excavate.
- In specific conditions, such as very rough or soft debris, forests, or when using untrained volunteers, alternative Coarse probing methods such as Two holes per step may be more suitable.
- Probing strategies can be complemented with other techniques, such as RECCO or dog/transceiver searches.
- Probe line member should ensure gloves are worn to prevent icing on the probe.

References:

[The Development of the UIAA 157 Standard for avalanche rescue probes](#) Genswein, Rogora, Bedogni, 2023
[Slalom Probing - A Survival Chance Optimized Probe Line Search Strategy](#) Genswein, Latang, Jarry, Reiweger, Atkins 2014
[Avalanche Probeline Guidon Cord](#) Rossi, 1998
[Avalanche Probing Revisited](#) Auger and Jameison, 1996
[Probing for Avalanche Victims](#) Ballard, Atkins, Ballard, 2004