



Leveraging Technology, Communicating Wisely, and Strategizing for Survival Insight from Search & Rescue

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From one moment to the next an epic backcountry adventure can become an intense and suspenseful emergency situation; and it can and does happen to anyone. There is nothing more critical to moments like this than having the right tools and information on hand to communicate and critically analyze the next best steps to ensure rescue is on its way. Therefore, we sat down with local Search and Rescue Manager and Training Officer, Gordon Bose, to provide you with the guidance you need to assist their team in your search and rescue.

ALWAYS call 911.

Whether you're stuck in a drainage, injured, lost at dusk, or any myriad of other emergency situations one can encounter in this extreme mountain terrain we call our playground; you need to make sure to engage local authorities as soon as possible. Prioritizing yourself and your safety starts with the understanding that – despite constant training and efforts on the part of Search and Rescue (SAR) to reduce response times – from the moment a call for help is dispatched you should expect to be waiting a minimum of 2 hours for the team to arrive on scene (and that's assuming you have

provided accurate communications on your location and have remained there). Bose explains that our Local SAR response team has deliberately spent significant time discussing how they can shorten response time and have implemented procedures to help in that regard. However, there are several steps they must go through in order to deploy their teams into the field. They need to comply with Team and Provincial Safety Guidelines; and for winter response, that includes completing a three page Avalanche Operations Plan.



Photo courtesy of RECCO AB

A big concern for a stuck sledder understandably and immediately becomes the recovery of their machine; however, darkness sneaks up on us in a hurry on the hills, and the risk of waiting to call 911 for assistance with your own rescue can have unintended negative consequences. A sled can be recovered even weeks after an incident, but the reality of your circumstance is that once dark hits the SAR team has a much more difficult task ahead of them – sometimes even impossible in the darkness, which means calling halt on the search and a long night in the elements on your own as you await daybreak and further assistance.

Some Key Points for Stranded Sledders:

- Expect to walk out ... SAR will only be able to get so close to your location before packing a trail down to assist you in walking out. They do carry in snowshoes for you, so be sure that you have communicated how many are in your party. Once you have reached the rescue team snowmobiles, you will be doubled back to safety or to the tracked OHV to be brought to base.
- Once/if you have communicated your location, you should stay put or try to follow your track back out. Ask yourself if you can physically make it to a main trail on your own (even if this means proceeding on hands/knees to pack snow) because you need to make sure that you're not putting your body at greater risk by overexerting/sweating excessively in extreme cold weather.
- Another important factor is whether your GPS device or communication methods can track your movements and signal back to your point of contact (and through them to the SAR team) that you have moved. Some devices will do this while others do not, which leads us to the next point...

Know Your Technology! Incredible advancements have been made in satellite and GPS technology for backcountry users in the last 10 to 15 years, but these devices are only as good as your knowledge of how they work. For example, did you know that if you send out an SOS and engage your provider in contacting local authorities and through them Search and Rescue, that then proceeding to contact your loved one to let them know what has/is happening can disconnect your callout?

Not all devices respond this way; thus, it's best to know in advance how your device works so that you are not inadvertently dispatching multiple callouts OR causing your search to be cancelled. Understanding that there are several individuals/organizations through which backcountry emergency communications flow and how that impacts your efforts to seek help is an important piece to understanding your device and should not be overlooked. Once you are connected to SAR you should only communicate with SAR. Your lifeline is ensuring that accurate latitude

and longitude are communicated to the right people. If you do not have a location device there are ways in which you can use your cellular phone to reach for help.

- When you are out in the backcountry the biggest risk to being able to seek help using a cellular phone is a dead battery. Conserve your battery by putting your phone on airplane mode when you begin your adventure so that it does not drain itself seeking a signal all day. You should also keep the phone close to your body where it is warmer and turn it off when you're not using it and/or in between emergency communications.
- Always call 911 first to engage a search and rescue. When you do this, you will need to provide a location. Most cell phones have a compass app which will provide you with the coordinates to read off. Make sure you know how to read latitude and longitude to give accurate information to the dispatch. Once you have done this it is best to focus on conserving battery.
- Phone calls not working? Try to text your circumstances and location to a friend or family member. Often signal strength will be sufficient for a text if not a phone call. Still no luck? Move away from trees, towards higher ground, and change the angle of your device towards the sky.

The worst-case scenario and how to avoid it starts with planning ahead. Regardless of the technology you plan to rely upon, it is always best to plan to be able to help yourself. Ensure someone back at home knows where you are riding AND when you will be down. Be specific; Blue Mountain is not a riding area – Blue Lake or Owlhead are examples of riding areas, accuracy helps your loved one guide SAR to your location. Make sure you plan how long you will be out for, and ensure that your friend/family knows when to expect a call from you and that they need to call 911 if they do not.

While this type of blind search can be extremely stressful, know that Search and Rescue trains extensively in our areas and has knowledge and deployment tactics to maximize success. Help

yourself by staying warm, lighting a fire, and having fresh boughs with which to make a smoke signal – really anything you can do to take care of your physical person while ensuring you can be seen or heard is your goal in a blind search. There are other ways to communicate in the backcountry too.

- Radios are a very good means of signalling to individuals in your group and to SAR once they are on site. In an emergency incident the recommendation is to make sure to have VHF radios set to LAD3. For BCA (GMRS) radios SAR sets the standard for communication at channel 1, privacy code 0. So, if a member of a party is in trouble, all members of the party should switch to 1-0 so that they can communicate with each other and with SAR simultaneously.
- Carry a whistle and be prepared (if near your machine when you hear SAR approaching) to start your engine (if possible) and rev your machine to attract attention as teams often search, stop, and listen.
- Finally, some new backcountry emergency communication equipment worth mentioning is up and coming [Recco Technology](#). The Vernon SAR Helicopter is equipped with a Recco Detector that can quickly search large areas, which is extremely useful in an avalanche where transceivers fail. According to Recco, the helicopter searches from a height of 100 meters, covering an area approximately 100 meters wide. Searching at speeds up to 100 km/h, rescuers can cover a 1 square km in 6 minutes. Our local search and rescue team also has a handheld Recco Detector and is excited about the possibilities this technology has for positive outcomes in backcountry searches into the future.

‘Beam me up, Scotty’ said the stranded sledder to SAR, but to no avail – and here’s why. At the end of the day when Search and Rescue is dispatched to the backcountry the resources that are allocated correlate directly with the circumstances of the incident. The deployment of these helicopters falls within the constraints of time, effectiveness, weather, daylight, appropriateness and of course budgets.

SAR has the option to deploy only two helicopters for a night rescue. One is a privately operated Talon Helicopter out of North Vancouver – but only if the skies are clear as it cannot fly in icing clouds for risk to rotor freezing. The other 24hr helicopter is military operated by Squadron 442 out of Comox, BC. This machine can be deployed in icing conditions. Each of these has the ability to respond in specific circumstances; and after permissions from outside of local SAR control are granted. In almost all instances where a helicopter is deployed the ground team will simultaneously attend the efforts.

Bose provided Sled Sicamous with a whole list of considerations in the ground versus helicopter deployment dilemma, but the main aspects are the circumstances of the incident – are there injuries, and what is the outcome for the individual(s) timeline? From there a SAR team manager assesses locations for landing sites, weather conditions, and daylight hours to determine the deployment for the fastest and best resolution for the rider. For daylight operations locally operated helicopters are engaged for deployment.

Though deploying a chopper for you (and for them) may seem like the simpler solution, the circumstances of backcountry rescues almost always require a team of 8 to 12 volunteers to hit the ground running (usually until the wee hours of the morning) to get you home safe.

Remember that at the end of the day Search and Rescue is tasked with responding to assist with the welfare of your person, but not with rescuing equipment. Below you will find links to local businesses who assist in machine recovery, but to do that you first need to make it out of the woods!

We hope that this information helps you to plan ahead and, as always, **SLED SAFELY.**

LOCAL SNOWMOBILE RECOVERY OPTIONS

