

## ***SAR SAFETY NEWSLETTER – Issue 17, November, 2019***

### **HYPOTHERMIA PREVENTION: Tips for GSAR Volunteers**

**Case 1** - A skier went out of bounds at a ski area and a GSAR response was activated after they were reported missing. GSAR volunteers located the subject's ski tracks and found them in a creek drainage at the bottom of a frozen waterfall; the subject had a fractured leg and was hypothermic. Due to cloud cover, it was decided to evacuate the subject in the morning using a series of stretcher raises. A GSAR volunteer was tasked with carrying a collapsible stretcher to the scene, but the stretcher was heavy so the volunteer gave their personal gear to another GSAR member to carry. The volunteer rappelled down the waterfall to deliver the stretcher and was separated from their personal gear, which remained at one of the upper rope stations. Due to avalanche risk, all responders were instructed to spend the night in their existing locations, and the volunteer who had carried the stretcher gradually became cold. To ward off hypothermia they cut themselves a series of snow steps in the hillside, which they walked up and down until daylight. By morning the skies had cleared, and the subject and all GSAR members were evacuated by a RCAF Labrador helicopter. The affected GSAR volunteer was not hypothermic and did not require any treatment.



**Case 2** – A GSAR group was conducting an overnight winter survival session for MIT's. The weather was cold, and members were instructed to bring appropriate clothing and sleeping bags. A large fire was built, fire-tending rotations established and members were to sleep in lean-to shelters near the fire. The temperature dropped, reaching a low of about -17° C., and around 02:00 hr. one of the MIT's reported they were feeling cold. Options were discussed including borrowing additional clothing and a warmer sleeping bag, but it was decided the MIT should spend the rest of the night in the nearby heated Command vehicle. Post-exercise review concluded the MIT did not bring enough clothing, nor was their sleeping bag sufficient for the conditions.

### **HYPOTHERMIA PREVENTION...What Happened in The 2 Vignettes?**

- In **Case #1**, the affected GSAR volunteer became separated from their gear due to operational circumstances; this can happen during GSAR responses. The member recognized they were at risk of hypothermia and devised an ingenious way to keep active throughout the night. It was probably not much fun, but it kept them warm.
- In **Case #2**, the member was new to GSAR and brought what they thought was the right gear; unfortunately it was not enough. The GSAR group had taken precautions for this sort of situation, so the MIT was never in danger. Better to learn about the realities of surviving extreme temperatures on a training exercise rather than on a response, where help may not be so readily available.

### **HYPOTHERMIA PREVENTION...Tips For GSAR Responders**

- In BC's mountainous terrain, hypothermia can occur in any season; recognition, treatment and prevention of hypothermia is something all GSAR volunteers need to understand.
- The most important asset you have is awareness. Are you too hot or too cold? Is your clothing wet? Preventing hypothermia requires constant awareness of activity levels and adjusting clothing accordingly. If you're working hard, you will likely need to layer up/layer down frequently. Carry extra clothes and swap out wet clothing, especially base layers, once you start to cool down. Monitor teammates to ensure they are not getting cold: Are they shivering? Are their clothes wet? Are they lagging behind?
- Choice of fabrics is important. Cotton should not be worn during GSAR activities (it offers little insulation, and once wet it stays wet). Wool, or synthetics like Primaloft, Capilene, etc. retain a lot of insulating ability even when wet. Synthetic clothing should be worn in layers (base; mid; outer), and the outer layer (jacket, parka, etc.) is ideally a waterproof/windproof, but breathable, fabric such as Goretex, etc.
- Ensure you have plenty of food; the body is a "furnace" that "burns" food, and it's harder to keep warm if it is short of fuel. Drink plenty of water; this replaces what you lose in your sweat.
- Always take some of your own survival gear with you, regardless of what you've been tasked to do. No one plans to be short of clothing, or to be separated from their gear, but it happens. This applies to trips in helicopters too; [SAR Safety Newsletter #6](#) shows what can happen when the helicopter can't return.

### **HYPOTHERMIA PREVENTION...Resources For GSAR Responders**

- WorkSafe BC has a good publication which stresses hypothermia prevention, available on its website: [\*"Hypothermia: Surviving the Cold"\*](#)
- The recently-updated *GSAR Safety Program Guide* has updated information on hypothermia, which is specific for GSAR volunteers. The [Guide](#) is available on the EMBC website.
- There is a good online training program available through the BCSARA SAR Safety Program HUB <https://members.bcsara.com/member-area/areas/sar-safety-program/documents/>

***Remember, It's Not Just The Subject That Relies On You...***