

icy, sleeping on mtn”. The friend called the RCMP who eventually got in contact with Parks dispatch. A Parks Mountain Rescue Specialist was able to climb up in the dark and short rope the two down via easier terrain.

Analysis

The two started late, were not prepared for the length of the route nor were they equipped for the change in weather. They carried no rope or equipment that would have made the descent safe and possible. (Source: Brad White, Banff National Park Mountain Safety Specialist)

(Canadian Editor’s Note: Another example of scramblers moving into technical terrain and requiring assistance. Banff National Park also reported one accident where a climber was bouldering on a small fridge sized rock that rolled over and crushed the climber’s ankle, which required a heli-evacuation.)

WEATHER, FALL INTO CREVASSE – SNOW BRIDGE FAILED

British Columbia, Purcell Mountains, International Mountain

I was guiding two clients on a ski mountaineering traverse from the Bugaboos to Rogers Pass with the help of an assistant guide. On April 16, we got into camp in Malachite Creek in the early evening. The next day we planned to ski from Malachite Creek to International Basin via Malachite Col, the Carbonate Icefield and International Mountain. It is 12 km in distance and about 800 m elevation gain; we planned to take about 6.5 hours.

That evening we got a forecast via satellite phone that indicated a fast-moving cold front would move through the next afternoon, accompanied with strong winds and intense snowfall (10+ cm) with a rapid improvement the day after. It sounded as if the timing would allow us to get through the serious terrain of the col and the crevasses near International Mountain before the worst of it.

The morning weather observation showed broken skies, -5 C, moderate west winds at ridgetop but no blowing snow, and a steady barometer. We rated snow stability as “Good” and avalanche danger “Low”.

We had obvious issues with the forecasted weather, so we planned to move fast. We were out of camp by 8:30 a.m., but by 9:30 a.m. we had flurries and gusty strong winds, with visibility about two km through mist; the front had reached us earlier than expected. We reached Malachite Col at about noon and it was decision time—should we stay or should we go? From here we had about a 2.5 km flat traverse to the crux getting past International Mountain. Visibility was OK although the light was flat; there was about two cm of snow since the morning. If all went well it would take about two hours to easy ground and a sheltered camp. Decision? Go!

In about 1.5 hours, we were approaching the rocks that we needed to get around on International Mountain. We were about 60 m from these rocks.

We would need to either traverse below them on steep slopes or get on top of them and walk a bit to a steep snow ridge that we could descend. The flat icefield suddenly starts tipping into 30+ degrees and there are steep slopes below that end in big ice and rock cliffs. Open crevasses were visible below and ahead there was a shoulder in the ice that would be favourable to forming crevasses.

The weather and snow conditions were changing rapidly. Moderate winds were causing the new snow to start to slab but overall coverage on the glacier was thin; there were areas where the ice was exposed. I had to decide whether thin crevasse bridges or slab avalanches were the greater hazard. If we triggered an avalanche, even a small one, while roped up, it would be disastrous and we would almost certainly all be dragged over the cliffs below. If I took the rope off and fell into a crevasse, it would also be very serious.

The new snow loading combined with the exposed terrain below made me seriously consider taking the rope off. However, there were crevasses nearby, and although there was no indication, we were right in them the terrain was conducive to them. The light was flat, the snowpack was thin, and I had previous beta that there were crevasses here. Although the snow was a bit slabby it was bonding well and in the end I decided to keep the rope on.

Ten steps later, unaware that I was on a bridge due to the poor light, I fell into a crevasse. The crevasse bridge was four m wide, 12 m long and one m thick and I was in the middle of it when it failed all at once. A moment later I was tight on the end of the rope, lying on my side on a steep snow slope in the crevasse with the black maw gaping below me. I had free-fallen about six meters. ER (my assistant guide) was second and had been pulled over, but EH and FB didn't even feel a tug. ER held the fall easily. We couldn't hear each other at all, so she decided not to do a tractor pull and quickly made an anchor.

This was a good thing, I was uncomfortably pinned against the snow by the rope and it would have been a mess if they had started hauling on me right away. It was a struggle, but I managed to clip everything to the rope: ski poles first, then pack and finally skis. Once that was all off, I could stand up and put my pack back on before climbing up the very steep snow slope to the lip, hauling my poles and skis. Once ER saw me there, she self-belayed to the edge with a prusik and I handed all my gear to her before getting a hand out. The whole thing took maybe ten minutes.

Then the fun started. We were suddenly in a full-blown blizzard and it took quite some time to work our way above and onto the rocks and navigate

down the steep snow ridge to get to the easier ground beyond.

Analysis

So what did I learn?

—I like to have an experienced helper along whenever possible on trips involving avalanche terrain and crevasses, and it paid off this time round as it was a relief to know there was someone on the surface who could get me out if need be.

—I was using a 45-m-long low-stretch 9-mm rope (rather than a dynamic climbing rope) and there were no issues with impact force, both ER and I didn't feel much of a jerk when I hit the end of the rope, and I was free falling for several meters. We also had another 35 m rope that EH was carrying, so we had plenty of cord to play with.

—I don't recommend a tractor pull unless you can communicate: if the victim is in an awkward position you could easily hurt them by blindly tugging on the rope.

—I worried a bit initially that I had almost taken the rope off due to the possibility of a slab avalanche in that exposed terrain but in the end I realize I came up with the right decision and that's a positive thing.

We had made a series of decisions before getting to that crevasse and I think they were all reasonable ones. In the end, we had to rely on our last line of defence on the glacier—the rope, but everything worked the way it was supposed to. We are never going to be entirely risk-free out there and this incident showed me that if I use all the tools I have available, I could have a scrape and walk away from it, although I don't plan on making a habit of it! (Source: Mark Klassen, ACMG / IFMGA Mountain Guide)

(Canadian Editor's Note: While this isn't an accident in the sense that it resulted in injury, it is an excellent first-hand account of a situation that provides insight into some decision making and risk management while travelling in the mountains.)

FALL ON SNOW – UNABLE TO SELF-ARREST, INADEQUATE EQUIPMENT, INEXPERIENCE,

British Columbia, Canadian Rockies, Castle Glacier

On Aug 3rd J.C. (22) and A.T. (24), on a day off from their university geology field trip, left their camp located at the base of Castle Glacier to ascend a nearby peak. They had to cross a crevassed glacier and ascend a loose rock rib to the summit. They brought crampons, bear spray, and a daypack. From the summit they decided to descend via a different route.

Descending the peak at 1230, they encountered very broken and friable rock that led them to a snow gully. At the top of the snow slope the party