Analysis

It is sometimes tempting to not place protection after the crux is completed. It is not known why the climber fell, but the distance of his fall may have been significantly reduced had he placed a screw on the low angled terrain between the two steep sections. (Source: Parks Canada Warden Service, L.M., T.T.)

FALL IN CREVASSE—POOR POSITION, INADEQUATE EQUIPMENT

Alberta, Jasper National Park, Athabasca Glacier

On March 16, D.S. and I decided to attempt a ski ascent of North and South Twin, despite the fact that the third member of our party could not come along. The year 2001 was a low snow year, but we felt it was reasonable for the two of us to ascend the heavily crevassed Athabasca Glacier since we had been there several times before without incident. The weather was poor on that early Friday morning, but visibility was sufficient to find a route up the glacier beneath Mount Snowdome. Trail breaking was hard with 30 centimeters of new snow, and the howling wind didn't help as we lugged our 60-pound packs up the glacier.

We reached the serac zone beneath Mount Snowdome at about 1000 hours. On our left was a thick maze of crevasses. On our right were the house-sized blocks of ice from the seracs high above. I chose a line as close to the crevasses as seemed reasonable, and we picked up the pace a bit to get through this dangerous section faster.

I suddenly sensed darkness, a complete loss of orientation, and the horrible realization that I was falling. I saw the bottom coming up to meet me…fast!

After what seemed an eternity, the rope stopped my fall. I slammed against the crevasse wall about five meters above a ledge. My heavy pack was killing me as I pulled myself upright and spent the next minute trying to control my breathing. To say I was freaked would be an understatement.

I took my pack off—not the easiest thing to do given that I had forgotten to put on a chest sling. Taking off the skis turned out to be quite a chore as well. I figured I was about 12 meters from the sunlight above. I was in a slot about 20 meters deep, 12 meters long and two meters wide. Wild ice sculptures at either end and above made me cringe. I could see that the reason I fell so far was because we had been skiing parallel to this crevasse. D.S. told me later he thought for sure he was going to follow me in as the rope zippered into the snow before his eyes. It stopped three meters in front of him.

It didn't take very long for the walls of ice to start sucking heat out of me. While moving uphill, I only had a few layers on to avoid overheating. Dangling in my harness, I couldn't get anything out of my pack. Above, D.S. had by now built an anchor and removed himself from the system. He followed the rope, started digging and knocked loose some of the overhanging ice sculptures. Fist-sized ice cubes came raining down. Why don't we wear helmets when ski mountaineering?! One chunk hit my left thumb, another my left shoulder. It was now impossible for me to climb with the prusiks.

D.S. and I tried communicating, but I could barely hear him and he couldn't hear me at all. Finally he determined to get help. Having only two people on

our team made that undertaking less than perfect. I was hoping he wouldn't fall into another crevasse on his way down!

Using the extra coils of rope in my pack, I lowered myself to the "floor" about five meters down. Once there, I put on every bit of clothing I had in my pack. Where I was standing was just over a meter wide, which meant that I wasn't yet near the real bottom. The snow just in front of me turned out to be bottomless when I probed it. I tried to take my mind off the tenuous nature of my stance.

I dug out my crampons and attempted stemming up with one hand on the prusiks. That worked for about five meters, but then the walls bulged outwards, and I could go no further. I resigned myself to waiting and sat on my pack trying to keep warm. I took out my sleeping foam pad and rolled it out over my head as a poor substitute for an icicle umbrella. I spent five hours sitting there contemplating life and death and hoping a serac didn't choose that moment to enter my crevasse.

In the meantime, D.S. had reached one of the Athabasca Icefield tourist buses and called for help. Despite the unstable weather, the rescue helicopter managed to pick up the wardens and bring them to the scene. Within 30 minutes they fulfilled my wish about seeing the light of day. D.S. and I had tied several knots in the rope between us, following the theory that they would slow down a crevasse fall. (They didn't!) The knots proved to be problematic when they were pulling me out. The wardens also tried to retrieve my pack, but because of the weird angles and obstacles, they were unable to bring it up quickly. Since we were very much in the active serac zone, we decided to abandon the pack.

I didn't know it at the time, but I was quite dehydrated and suffering from shock. As the EMS lady coaxed me into the ambulance I kept thinking, "Bah, I'm okay, I don't need to take an ambulance..." It wasn't until I was sitting down in a warm place re-hydrating that I realized just how messed up I was. I was surprised about some of the symptoms of shock. Emotionally I was a mess. I experienced spontaneous uncontrollable crying and the shakes for the duration of the ambulance ride to Jasper.

The next day, we drove back home down along the icefields parkway in beautiful weather. What I found interesting is how my psyche shifted from, "I'm glad to be alive," to "I wonder if I can get my pack out?" All that clarity and simplicity was slipping away. Two weeks later three of us ventured up to the crevasse only to find car-sized chunks of ice and snow covering the whole area.

Analysis

Prevention is better than falling in. Check the snow pack! Probe when in doubt. Consider alternative routes. In our case we ignored the "fresh blowing snow combined with low snow year" clues.

- Pay particular attention to the lay of the land. Sometimes there are exceptions to the direction of the crevasses.
- Practicing crevasse rescue in the gym is great, but it's not the same. It is hard to simulate the real weight and cold and working with gloves, etc.
- Falling in with skis is not the same as falling in with crampons and an ice

ax. There is no way to catch yourself as you go in on skis.

• Three people on any glacier are way better than two. On a known heavily crevassed glacier, three people should be considered mandatory.

• Bring a VHS radio and know how to use it. In the winter the margin of error is considerably smaller than on a summer trip.

• Bring walkie-talkies to communicate with the party on the outside.

• Bring a pair of mini ascenders. I am confident that I could have worked these in lieu of the prusiks and my injury. Working 5mm prusiks on a 8mm rope with knots under 250 pounds of tension is no picnic in freezing temperatures! (Source: R.M.)

FALL ON ICE, INATTENTION

Alberta, Banff National Park, Professor Falls

On March 20, after instructing an ice climbing session on this popular Grade 4 ice climb, J.M. tripped on easy terrain while descending to the second rappel. He fell over a six meter pitch and sustained a dislocated shoulder and a back injury. One member of the party walked out for help, and the victim was evacuated by heli-sling shortly thereafter by Warden Service rescue crews. (Source: Parks Canada Warden Service)

Analysis

Care and attention are necessary even on easy ground, especially when one has crampons on. (Source: Nancy Hansen)

RAPPEL ERROR–INADEQUATE ANCHOR, WEATHER, CLIMBING ALONE

Alberta, Jasper National Park, Mount Snowdome, Slipstream

On the afternoon of March 24, M.G. and C.G. made their way up the Dome Glacier to establish a basecamp below Mount Snowdome. Their objective was to climb "Slipstream" (alpine grade VI, water ice grade 4+, 925 meters). This alpine ice climb forms most years on the east face of Mount Snowdome. The party awoke early and discussed plans. The weather was changing for the worse, and M.G. decided not to climb. C.G. decided to solo the route and departed camp at 0400. He took with him one ice screw and a 40-meter section of 8.5mm rope. His intended route down was the standard descent route to the south. At daybreak, M.G. observed his partner ascending the route.

By midday he was just below the top of the route. Throughout the morning the weather had continued to deteriorate with cloud build up and increased winds. At this time M.C. observed his partner starting to rappel the route. He saw a couple of rappels before the clouds descended and C.G. was obscured from view. About 30 minutes later M.C. observed a large avalanche coming out of the cloud and down the route. Fearing that his partner had been caught in the avalanche he quickly made his way back to the road and called for help. His call was patched through to the RCMP. The Jasper Warden Service was notified at 1630. Wardens on scene at 1650 spotted what they believed to be C.G. high on the climb continuing to make his way down.

However, high winds and poor visibility over a distance of five kilometers made it impossible to be absolutely certain that what they were viewing through