

Climber B was some ten feet lower in the moat (in a much more narrow section) and essentially immediately below A. He was wearing a large rucksack (est. 35 pounds) and had a few nuts and other hardware on his harness. There was one small wired nut loose on the snow in the moat; it did not have a carabiner or sling on it. There were no slings, carabiners, or other protection clipped to the rope between climbers.

Based on these observations, we proposed the following scenario to explain the accident. The climbers had completed the first several difficult (up to 5.8) pitches and reached a "huge left-slanting ledge." Beckey's guide indicates that the ledge is easy, has some trees, and is 160 feet long. We believe that Climber A led across the ledge placing no protection, and established his belay with the single two inch cam. Climber B removed his belay anchor (the few pieces on his harness) and proceeded across the ledge. His 125 foot fall was held by A's belay plate, but the single anchor failed to hold Climber A. Because of his head and neck injuries, B may have been killed by the pendulum fall. Both climbers went straight down into the moat, with A landing above B. The loose wired nut with the bodies may have been A's attempt to get something else in when the fall occurred, or may have been a piece that B had just removed. The fact that it did not have a carabiner tends to indicate the former.

Analysis

A number of points were made. If one is not going to climb the route that was originally signed out, then leave a note in base camp as to where one decided to go. Had they not died instantly, they would most certainly have died of exposure in the ensuing ten days, because no one knew where to look. This route is known by many others to be very unstable and unsafe in its first pitches because of loose, "rotten pink rock," as stated in Beckey's guidebook. Never climb more than a few feet above a belayer without putting in at least one piece of protection, preferably more; one piece might have saved both of them. Wear a helmet, though in this case it probably would not have helped; it almost certainly would have had they used some protection for the lead climber. Belay anchors should be more than one piece when warranted. The second climber should be protected on a traverse. (A few slings around the trees would have resulted in a short fall instead of 125 feet here.) (Source: Freeman Keller, Chelan County Mountain Rescue, and Dr. Michael Brown)

FALL ON SNOW, INADEQUATE PROTECTION, FALL INTO CREVASSE, HYPOTHERMIA, NO ICE AXES USED TO PREVENT ROPE CUTTING THROUGH SNOW

Washington, Mount Shuksan, Fisher Chimneys

On July 7, 1992, at 1600, a nine person party was descending Mount Shuksan via Hell's Highway, a steep transitional section from the Sulphide Glacier to the Curtis Glacier. The middle person, Silvia Cate (38) of the second rope team, lost her footing in very soft snow and began sliding toward a large crevasse approximately 60 feet downslope. Ms. Cate tried to affect self-arrest but she could not get the ice axe to find purchase in the soft snow and slush. Ms. Cate pulled the other two rope team members off their feet and they also began sliding toward the crevasse.

Despite their efforts, the other two rope team members could not self-arrest and were heading for the crevasse. Ms. Cate fell approximately 35 feet into the crevasse becoming wedged in tightly between the ice walls and covered with loose, wet snow.

Her other partner, the lead on the rope team, Katie Foehl (48), fell into the crevasse approximately 50 feet down from the lip and was tightly wedged in between the ice walls. The third member of the rope team, Candy Morgan, slid over the open crevasse and landed on the downhill side of the crevasse and managed to stabilize herself in that location.

The next sequence of events is difficult to follow. Here is what has been recalled. Apparently the remaining seven members contacted another party in the same area to request assistance. This group had a Marine transceiver with them. They contacted Vancouver Coast Guard on Marine Channel 24, who relayed the distress message to the Vancouver Marine Operator, who contacted the Glacier Public Service Center (US Forest Service HWY 542), who then contacted Marblemount Ranger Station.

The remaining members affected the extrication of the two climbers. A system was set up to haul Ms. Cate out of the crevasse. They managed to raise her to within 15 feet of the lip of the crevasse. At this point the rope had cut through the snow and ice to a depth of three to four feet and became jammed. No chafing gear (ice axes or padding) was set up to insure a free running rope.

At this time, another climbing party came on scene as they were descending the same route. They assisted the party in trouble, set up another raising system and lowered another rope to Ms. Cate, who was 15 feet below the lip. Ms. Cate was then free and clear of the crevasse and attended to by the people in her party. It is estimated that she was in the crevasse for 45 minutes. She was thoroughly chilled and had her clothing changed out by other members of the party.

The rescuers then attempted to raise Katie Foehl out of the crevasse. She was stuck hard between the ice walls. The assisting climbing party had set up a raising system on the upslope side of the crevasse; the other system was ineffective because the rope was cutting into the snow. Katie was stuck so hard that Brad Rodgers was lowered into the crevasse to free Katie. He was belayed with ice screws on the upslope side of the crevasse. Brad cut the pack straps on Katie's pack to help free her up. Rescuers above began hauling her up and Brad stemmed up the ice walls and assisted in yarding her up. Katie was in the crevasse approximately two hours.

At 1855, Highline Helicopter with NPS SAR personnel departed Marblemount with rescue personnel. On scene at 1925, helicopter was able to land just below the crevasse. Both climbers were out and were attended to by fellow climbers. The victims were suffering early to advanced stages of hypothermia, but no other serious injuries noted. (Source: Uwe Nehring, Ranger, Mount Rainier National Park)

Analysis

There was too much slack in the rope between Katie, Syl and Candy. The slope should have been protected either via leapfrogging or pickets (which the party did not have). Syl continued to slide, gaining momentum. Observation (based on subsequent conversation with Katie): Syl should have yelled, "Falling," as Katie was unaware of what was happening until she was pulled off her feet. I believe Candy went into self-arrest immediately, as did Katie once she was pulled, but the slope angle, speed and snow conditions did not allow for self-arrest.

The effectiveness of the arrest, especially since I had my pick fairly close to my right hip and quite a bit of my body weight over it. In firmer snow I think I might have been able to stop myself. I remember zipping past a crevasse or two—I am not sure if I went by them or over them. I just have a vague, visual image of flying past them while trying

to self-arrest. The next thing I knew I went over the lip of the crevasse—flipping so that I was falling back first, head leading.

(What follows next are some additional excerpts from Sylvia Cate's eight page description of her two hour ordeal in the crevasse.)

I remember every inch of the fall vividly. Part of my brain realized that I was falling very likely to my death; part of my brain was processing how pretty it all was, especially the clumps of snow exploding against the ice walls as I fell. I kept expecting the rope to come taut and stop me, but I continued to fall, narrowly missing an ice tower, snow exploding everywhere, the bright blue sky and sunlight getting further and further away until, Wham! I stopped—wedged tight at about a (I estimate) 45 degree angle, feet above, head below, staring straight up at the sky and sunlit ice walls at the lip, and then, whoomp! All the pretty exploding snow landed on top of my chest and face, completely filling my nose and mouth so I could not breathe. I was pretty sure I was going to die by suffocation. Fortunately I had use of part of my left arm and I was able to dig the snow out and start breathing again. I was dry retching and gasping for air when another huge clump of snow fell, suffocating me again. I was now convinced I was going to die. I dug out the snow again from my mouth and nose—amazed at how tightly it was packed in. I think once I caught my breath again I began screaming hysterically for help. A bit of confusion—a lot of voices—echoing off the walls....

I can see my watch—it's about 4:15-4:20 or so. I'm pretty sure I'm going to die—probably of hypothermia—before (if) I get pulled out. In between waves of total hysterical panic during which I kept screaming to Howard to hurry, I talk to Katie some. She's wedged. She's been able to loosen her chin strap so she can breathe some. We both cycle through periods of panic screaming—generally hollering, "Hurry and please get us out." Howard keeps telling us, "We're working on it; don't worry, we'll get you out." I know he's working on it and I know they're all hurrying as fast as safety allows. I try hard not to holler because I don't want to distract them. But I'm also getting so cold, it's hard not to go into a screaming frenzy. I have told Howard Katie's status and I hear him tell the folks on top to concentrate on Katie first. I keep looking at my watch to keep myself focused. I know it's going to take time. I have to hang on...

Another tug. I must be 12 to 15 feet below the lip, and I see the rope has sawed through all the soft snow at the edge—probably has cut through at least three to four feet. Malcom's head pops over. I can see he's in the sun and I'm so envious. I want out, now. He asks me if I can use my prusiks to get out. Ha! The rope at my harness tie-in is still a confusing jumble wrapped around prusiks and one another, and besides, I can't use my hands. I stare at them and wonder stupidly why they're so white. I explain to Malcom I can't do it. He lowers a second rope to me with a little stiff sack tied to it—gloves inside! It takes me a good five minutes to get them on—I'm so cold. I think they're still expecting me to prusik out. I know I can't. Even if I can get my hands to work again, I'm shivering too violently and I'm too weak. I get an idea. I see the problem with the rope cutting through the lip. I ask them to give me a bit of slack—they lower me about a foot to a little snow bridge. Somehow I manage to snag a 'biner off my rack and clip the second rope to my harness. "Pull me up on this one," I say. I keep trying to kick steps into the soft snow at the lip to help myself out, but it just crumbles away. I am so close to blue sky and sunlight and Malcom and maybe warmth, but it doesn't matter. I'm shaking violently—I can't get my hands to work and I'm just kicking more and more snow down. Thank God it wasn't falling on Katie. A tug. They're pulling me up with the second rope—as I get closer, Malcom and Don lean over and horse me out over the lip.