



AAC Publications

Avalanche – Poor Position

Canada, Alberta, Banff National Park, Polar Circus

At 5:30 a.m. on February 5, two climbers set out to climb Polar Circus, a 700-meter ice climb on Mt. Cirrus. It had snowed lightly overnight and continued to snow during the day. Later in the afternoon, they observed snow sloughing off the steep cliffs adjacent to the climb. The climbers reached the top at 4 p.m. and began rappelling the route.

Just before dark the climbers reached a large snow slope in the middle of the climb. The first climber began walking across the snow to set up the next rappel station while the second climber coiled the ropes and put on his headlamp. At 6 p.m. the second climber reached the middle of the snow slope and observed his partner's tracks disappearing into a fresh avalanche fracture line. The avalanche debris was spread out over the next two pitches of the ice climb, a distance of approximately 200 meters.

The second climber rappelled down and spent two hours doing a visual search and probing likely spots in the avalanche debris with his climbing gear, but was unable to locate his partner. As the incoming storm intensified, he wisely decided to continue rappelling and arrived at his car at 11 p.m. At 11:30 p.m. he contacted the Parks Canada Visitor Safety team via satellite phone from a nearby hostel to request assistance.

A Parks Canada team flew in to the site the next morning to do an aerial search but was unable to locate any signs of the missing climber. As the storm continued, the avalanche hazard increased and the recovery effort was delayed several days until avalanche control was completed on the slopes above the accident site.

On February 9, search teams were inserted into the accident site by helicopter long line, and a search began with dogs, a RECCO search device, and probing of likely burial spots in the debris. On February 10, a faint RECCO signal was found near some weak dog indications (even though the climbers had not been equipped with RECCO reflectors), and on February 11, a probe strike near this spot located the missing climber under 2.8 meters of snow. It was later determined that the climber had died as a result of trauma sustained in the avalanche, and that the faint RECCO signal was reflected off a headlamp in his pack.

ANALYSIS

The primary issue was a failure to recognize the increasing avalanche hazard throughout the day. Given the large amount of avalanche terrain above this climb, the confined nature of the climb, and the steepness of the snow slope midclimb, small changes in weather can rapidly increase the avalanche hazard on this route.

The avalanche bulletins for the region had rated the alpine and treeline hazard as Moderate to Low, but indicated that the arrival of an incoming storm would create a substantial rise in the avalanche hazard. The storm arrived earlier than forecasted, with new snow accumulations of 10 to 12 centimeters during the day, increasing winds, and warming temperatures. These changes caused hazardous snow conditions. The first climber either triggered the steep snow slope he was crossing or got hit by an avalanche from above while crossing the slope. Diligently monitoring conditions,

watching for clues such as sloughing, and being willing to turn back when changes occur are critical when traveling in steep, confined avalanche terrain. While many ice climbers choose to climb in avalanche terrain without carrying avalanche rescue gear, this trend is beginning to change. In this case, avalanche gear would not have prevented the climber from dying, but it would have reduced the time his partner spent searching for him under increasingly hazardous conditions. For the rescue teams, this would have significantly reduced the duration of their exposure to the avalanche slopes above the climb. Wearing gear with sewn-in RECCO reflectors also can substantially assist a rescue team.

Editor's note: A solo climber died in an avalanche from a snowfield on Polar Circus in 1982. In November 2015, five climbers were caught in an avalanche on the north side of Mt. Stanley in Kootenay National Park and were carried about 60 meters downslope. Fortunately, they were able to dig themselves out and were not seriously hurt.

Images



A climber beneath the final pitches of Polar Circus. Fresh snow can make this long route hazardous, with numerous avalanche terrain traps.

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