

Ski Mountaineer Hit by Falling Cornice

Canada, Alberta, Banff National Park, Mons Icefield

A group of seven skiers was attempting the southern portion of the Great Divide ski traverse, which goes from the Columbia Icefields to Lake Louise. On May 4 they were using the standard bolted rappel route off the west glacier of the Mons Icefield. This descent goes through a 100-meter rock band below a snow slope and cornice. They were on the rappels around 10 a.m. on an overcast day, following a poor freeze.

The first member of the party had just reached the ledge at the bottom of the rappels when a chunk of the cornice failed and entrained enough snow to create a size 1.5 avalanche that knocked him off the ledge and carried him about 40 meters downslope. He remained on the surface, but was sore and shaken up. The rest of the group, spread out along the four rappel stations, was unaffected. They rappelled down to reach the patient, assessed him, kept him warm, and moved him downslope away from further avalanche hazard. They called for help using an inReach device and a satellite phone.

A team of Visitor Safety specialists responded with a helicopter from Banff. Two rescuers packaged the injured skier, who was transported to the Banff hospital via helicopter. The remaining six skiers decided to abort their traverse plans and ski out to the nearest road.

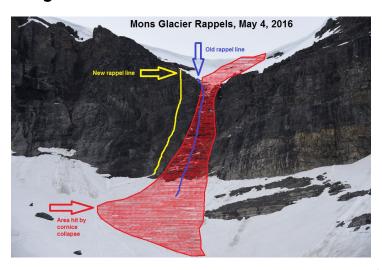
ANALYSIS

This challenging traverse requires favorable avalanche conditions, weather, and snow coverage to be completed safely. The winter of 2016 was very warm and dry, and spring came early. Snowmelt in the Rockies was about one month ahead of schedule.

The Mons rappels expose you to a large cornice that overhangs the descent route and falls off every year. Cornice failures are unpredictable; however, they tend to fall when they are big (i.e., in the spring) and when temperatures are warm or after windy periods when a lot of new cornice growth has occurred. The party chose a reasonable day with respect to the cloud cover, but the cornice would have been much more solid if they had had a good overnight freeze. They also might have avoided problems if they had done the rappels at night or earlier in the morning.

Unfortunately, on big traverses you often don't have time to wait for perfect weather conditions or timing. This team rolled the dice and lost. Fortunately for them, a few summers earlier, the Banff Visitor Safety team had moved the bolted rappel route to a more protected location in order to decrease the cornice-fall exposure. The skiers were using the new, more protected rappel line, and the six skiers who were still on the rappels when the event occurred were thus sheltered from the cornice chunks instead of being directly in the line of fire, as they would have been on the old rappel route.

Images



A cornice collapse covered the former rappel route (blue line) down this 100-meter rock wall. The new rappel route (yellow) was mostly untouched.

Article Details

Author	
Publication	ANAM
Volume	11
Issue	60
Page	116
Copyright Date	2017
Article Type	Accident reports