

relatively uninjured. His death was likely caused at least partly by hypothermia. The doubled rope was hanging near him from a rock bolt about 25 meters higher up, at the top of the main pitch, but there was no sign of S. M.

The avalanche deposit in the narrow canyon immediately below was estimated to be more than 15 meters deep. A brief search was conducted that day, using the Parks Canada dog team, and the gully was searched three days later during a cold snap, by which time the snow had frozen solid, making digging impossible.

A few personal articles were later found in search attempts through the spring, and the helicopter was used to check the gully during the summer. Eventually, S. M.'s body was found, about 50 meters below the main pitch, when the snow melted away from it in a moat along a rock face. He had been at least ten meters below the surface. S. M. had apparently been swept off the falls by a large fresh slide. It is possible he had been rappelling at the time and was carried off the end of the ropes.

Analysis

The guidebook description of this route begins, "Don't even look at this route after the first significant snowfalls of the year." The day these climbers selected was likely the worst one of the season, with the snowpack affected by warm weather and rain.

S. M. had started ice climbing the previous winter when he had first come to Banff, and had climbed other routes on Cascade a number of times previously, but this was G. L.'s first ice climb, and equipment had been borrowed for him to go along.

Both climbers were local staff. Safety information given by the Parks Service is prepared with a view to reducing incidents like this. (Source: Tim Auger, Banff National Park Warden Service)

FALL ON ICE, INADEQUATE BELAY POSITION, PROTECTION PULLED OUT Alberta, Rocky Mountains, Lake Louise, Louise Falls

A party of two were climbing the upper pillar (grade V) of this popular waterfall on March 20. About ten meters out from the belay, the leader fell, pulling out the one screw he had placed for protection. The resulting 20-meter fall was arrested by his belayer, but the force of the fall spun him around and he sustained a fractured fibula. The leader was not injured. The two climbers were assisted to the base of the waterfall by an ACMG Guide who was working in the area, and then the injured climber was slung out by helicopter to an ambulance waiting at Lake Louise. (Source: Marc Ledwidge, Banff National Park Warden Service)

Analysis

Belays should be set up so they transfer impacts from all likely directions to the anchor in as straight a line as possible. The belayer then needs only to control the run of the rope. (Source: Orvel Miskiw)

FALL ON ROCK, INADEQUATE PROTECTION Alberta, Rocky Mountains, Cougar Canyon

About 1500 on May 13, Kananaskis E.M.S. received a call regarding an injured rock climber up Cougar Creek. They notified Park rangers and Canmore Fire Department, then left for the scene. The ranger on duty directed a colleague to Cougar Canyon im-

mediately while he gathered appropriate rescue equipment and called Alpine Helicopters to stand by.

When the first ranger reached the accident site, he found that climber M. S. had fallen off a 5.11 route on Catseye Cliff Left above the second bolt, and dropped about three meters onto a tree top. His inner thigh had been impaled by the old broken top of the tree. He sustained a three-centimeter flesh wound. He was evacuated to the trailhead, where his friends drove him to Canmore Hospital. (Source: George Field, Kananaskis Country Alpine Specialist)

OVERDUE, WEATHER POOR NAVIGATION, CLIMBING ALONE

Alberta, Rocky Mountains, Columbia Ice Field

On July 22, D. E. (52) started up the Athabasca Glacier on his way to Mt. Columbia, and reached its summit (3748 meters) in a whiteout at 1600. Starting out toward the road, he bivvied on the ice field south of Snow dome. Next morning he broke camp at 1000, intending to descend the Athabasca Glacier, but again in a whiteout, he got disoriented and reached steep terrain south of Mt. Andromeda. Then, thinking he was somewhere to the north, he turned south, hoping to descend Saskatchewan Glacier; however, in reality he was heading down Castle Guard Glacier. Continuing well below tree line, he realized something was wrong, turned back, and camped that night below the glacier. On July 24, he started traveling at 0500, got his bearings sorted out, and was on his way to Athabasca Glacier at 1250 when he was located and picked up, in good condition, by Jasper Park wardens. (Source: Steve Blake, Jasper National Park Warden Service)

Analysis

D. E. had intermediate experience and good equipment, but apart from the simplicity of independent travel, soloing in the Columbia Icefields has little to recommend it, and is discouraged because of the hazards involved. In this case, D. E. managed to avoid them. (Source: Orvel Miskiw)

FALL ON ROCK, INADEQUATE PROTECTION, HANDHOLD FAILURE

Alberta, Rocky Mountains, Kid Goat Buttress, "Keelhaul Wall"

On July 24, Laura and Marty went to the Canadian Rockies for a climbing trip, hoping to do a few routes in the Bow Corridor. Starting at Kid Goat Buttress, they had a good time on "Twilight Zone," found the north descent gully, and then proceeded up "Keelhaul Wall," another 5.6.

They combined the first two pitches into one with their 60-meter rope, and then on the third pitch, Marty continued past the trees, as it seemed better to belay a little higher up. Unfortunately it was hard to find a good belay stance, and when he did, his three placements were spread far apart and so he had to use the rope to link them all together. That made it difficult to rearrange for Laura to take over the belay, so she decided to lead the last pitch. That pitch was rated 5.5, and Laura was solid on 5.7's, so they were confident she could do it.

Leading out, Laura found a slot about five meters up, but all she could get into it was a #1 Rock, which she did not think was any good. She climbed on, over the crux, unable to find or place any more protection, and about nine meters above her only protection, she was feeling secure again when an apparently solid hold broke off in her hand. She