

loose though not technically difficult climbing. Following this pitch the difficulties eased and the climbing was mostly fourth-class. We were roped and using running belays. At about 1630 and after a lot of exposed climbing we were nearing the end of the rotten towers on the route. I stepped on a large flat rock, which shifted under my weight. I had to jump back to avoid slipping off the west side of the mountain. I had been leading all day and after the incident realized that I was quite tired and set up a belay just past this point and was joined by my partners. We took a break and I asked H.N. if he could lead from there because I didn't want to make any kind of mistake in the gear placements over the next few pitches. H.N. led off across some steepish terrain that was a mixture of snow and ice, and there was some discussion about whether it was better with or without crampons. E.D. and I decided to wear crampons. Approximately ten meters after the belay, there was a short, steep, very loose down-climb. H.N. was able to place a solid tri-cam at the base of the section, and then another solid midpoint anchor before the easier ground. As I entered this section I turned to face in and gently work myself down through the loose rock and I slipped. It is possible that my crampons skated on the rock, or that the loose rock all collapsed out from under me. The tri-cam was placed horizontally in solid rock and slightly above where I was standing, but was approximately ten to twelve meters away. As a result I took a long pendulum fall, bouncing hard three times before coming to a rest below the tri-cam. During the fall I tried to stop myself and this is what likely resulted in the severe lacerations to both of my hands. Very shaken, I came to rest on a small snowfield. There was a lot of blood coming from my hands. I was belayed on a tight rope to E.D., who was at the midpoint anchor. We bandaged my hands, changed positions on the rope, and I was belayed from both ends across to the leader's station where we debated what to do. As we reassessed my injuries, it became apparent that there was some potential damage to my back and possibly some broken ribs which were becoming more painful by the minute. It was also apparent that my right hand was virtually unusable. As a result we contacted the wardens by cell phone and requested assistance. We were plucked off the ridge approximately an hour later by heli-sling and I was taken to hospital by ambulance. Injuries included at least one rib separated from the cartilage on my right side, severed muscles in my right hand between the thumb and forefinger and a deep laceration in my lower left palm. (Source: victim)

Analysis

It is possible that the fall was caused by the climber wearing crampons in the rocky section. Whether to wear crampons in certain mixed terrain can be a tough decision. In this case, one person had made it through the section without crampons, one had made it with crampons, and the final climber was unlucky. (Source: Parks Canada Warden Service, Nancy Hansen)

FALL ON ROCK, HANDHOLD PULLED

Alberta, Mount Laurie (Yamnuska)

On September 17, C.H. and C.S. were climbing "Grillmair Chimney" (5.5) on

Mount Laurie. C.S. was leading the fourth pitch when he pulled out a rock the size of a microwave. He fell approximately 5–7 meters with the rock and was caught by his belayer.

At 2145, some nearby campground staff reported a light shining midway up the mountain face. Twenty minutes later, C.H. arrived back to the parking lot and confirmed that his partner was in trouble on the mountain. He reported that C.S. had a broken wrist and was conscious.

Kananaskis Emergency Services personnel began to arrive on the scene and climb up the scree slopes to the base of the cliff. At 0100, two of the rangers began climbing the cliff towards the victim. As they were climbing in the dark, they did not arrive at the victim until 0615. They administered first aid to the victim's broken wrist and elbow, multiple contusions, cuts and abrasions. C.S. was then heli-slung out to the waiting ambulance. (Source: Kananaskis Country Alpine Specialist)

Analysis

Mount Laurie, better known as Yamnuska, is a popular limestone cliff on the eastern edge of the Canadian Rockies. The routes are up to 12 pitches in length, and most tend to be hard for their grade. The rock protection tends to be very good on the mountain, but the rock is also notoriously loose in sections, and it is not unusual for “microwave size blocks” to come undone. Every suspicious looking hand hold and foot hold must be tested completely before putting one's trust in it. (Source: Nancy Hansen)

FALL ON ICE, INADEQUATE PROTECTION, POOR POSITION, INEXPERIENCE and AVALANCHE (TWO SEPARATE ACCIDENTS)

Alberta, Banff National Park, Cascade Waterfall

These two serious accidents are reported together because they happened on the same climb within minutes of each other on December 17. They were separate and distinct accidents in one respect, but both incidents overlap in terms of terrain and the roles of the various people present.

Cascade Waterfall is one of the most accessible multi-pitch Grade III climbs in Western Canada. It is situated within sight of Banff town site, and consists of several hundred meters of ice beginning with easy lower-angled terrain leading up to three steeper main pitches of climbing. It is not uncommon for there to be several teams of climbers on Cascade at once. Like the majority of ice climbs in the Canadian Rockies, Cascade Waterfall is exposed to avalanche risk.

About 1400 on December 17, nine climbers in four separate parties were all positioned at various points along the main upper climb. One party of climbers had reached the end of pitch one, which is moderate Grade III. They decided to turn around and rappel back to the start of the pitch. When 21-year-old M., a beginner ice climber, reached the end of his rappel, he detached from the rope and began to walk across the low-angle ice. He was aiming for the ledge of dry rock which several others were using to exit the climb onto scree slopes to the east. Witnesses on the ledge say he took one or two steps, lost his balance and fell. He had no tools at hand and accelerated rapidly. He tumbled approximately