

The party remained at the 5400 meter camp on May 10. On May 11, they moved to 4450 meters on the West Buttress route. Eric wore three pairs of socks inside of his plastic boot shells for the descent. His feet were too swollen to fit inside his inner boots. Upon examination at the Medical Research Camp, Dr. Peter Hackett felt that the feet had been re-frozen, particularly the right great toe. Hackett re-warmed and dressed both feet and requested an air evacuation, which was not attempted until May 13 due to bad weather.

Lowell Thomas Jr. of Talkeetna Air Taxi made one landing at 4450 meters to pick up an injured member of another climbing party. He then attempted a second landing to pick up Alamichel, but aborted it due to dangerous, windy conditions. The entire party then skied down to Kahiltna Basecamp at 2240 meters, arriving at 2100. On May 14, Alamichel was picked up at Kahiltna Basecamp and flown to Talkeetna, then driven to Providence Hospital. (Source: Clifford Beaver, Ranger, Denali National Park)

### **Analysis**

Alamichel said he left camp cold and an hour later felt nothing in his feet. He interpreted this to mean everything was alright when in fact this is a final warning of deep frostbite and action should be taken to reverse the damage immediately.

He reported wearing boots that were too tight, had wool felt inner boots that tend to accumulate moisture, and was wearing no gaiters. He had climbing bibbs that snapped down around his boot cuffs. (Source: Clifford Beaver, Ranger, Denali National Park)

### **Analysis**

In retrospect, the frostbite victim should have descended to 4300 meters as soon as frostbite was recognized, if that was at all possible. The toes could then have been thawed without any danger of refreezing. Thawing toes at the higher camps was appropriate, since they would have thawed spontaneously anyway in a sleeping bag that night. However, adequate precautions were not taken on the descent two days later to prevent refreezing. The skin temperature measured upon immediate entry into the medical hut was -2 degrees C. Although an air evacuation was called for because this appeared to be a freeze-thaw-refreeze injury, and theoretically more subject to damage from trauma, there appeared to be no further damage due to his descent on skis. This reinforces our experience that patients with frostbite can most often evacuate themselves from the mountain. (Source: Dr. Peter Hackett, Director, Denali Medical Research Project)

## **FALL INTO CREVASSE, INADEQUATE EQUIPMENT, FROSTBITE, INEXPERIENCE**

### **Alaska, Mount McKinley**

On May 2, 1988, the five person Chinese Hong Kong expedition lost a cache at 3450 meters on the West Buttress route on Mount McKinley due to deep snow accumulation. There was enough food and fuel to allow two members, Chris Lam Mun (28) and Jack Hui Chi Wah (26), to continue up the West Buttress while the others descended to basecamp to wait.

On May 10, Lam Mun and Chi Wah started climbing up the fixed lines from the 4450 meter camp on the West Buttress in deteriorating weather. Once at the top of the fixed lines, they descended about 60 meters on the Peters Glacier side in order to get out of the weather. While chopping a tent platform, Lam Mun dropped his rucksack down toward the Peters Glacier. With crampons on, he started down after the rucksack and after 60 meters, slipped and slid into the same crevasse as his rucksack. He fell about three meters into the crevasse, which was about 125 meters below the ridge. Chi Wah quickly grabbed a rope and ice ax and without crampons went down to help his partner, but slipped in the same spot and fell into the same crevasse. One and a half hours later the pair were able to extricate themselves from the crevasse. Both received frostbite on their hands, and Lam Mun also frostbit his feet and injured his shoulder and neck.

By the time they reached their tent platform, they were unable to set their tent up due to wind, so they just used it as a bivy sack. On the morning of May 11, Lam Mun was unable to walk due to swollen feet and his neck injuries. Chi Wah quickly descended the fixed lines to the medical research camp to get help, arriving at 1030.

By 1130, Ranger Ralph Moore and party started heading up to assist. Along the way two Canadians who were descending the West Buttress volunteered to help. By 1545 Moore found Lam Mun shivering on top of his sleeping bag, just wearing socks, and wrapped in the tent. He was packaged and assisted up to the buttress and then lowered down the fixed lines and sledged down to the medical camp where he was treated and stabilized.

On May 13 the weather cleared, and Lowell Thomas, Jr. was able to land and evacuate the two injured climbers. They were taken to Providence Hospital and were in the thermal unit for four days. Lam Mun did not have any other injury than frostbite. (Source: Scott Gill, Mountaineering Ranger, Denali National Park)

### Analysis

The expedition was a very inexperienced group. Splitting up probably made the situation worse. It would have been much safer had both members been fully geared for glacier travel and gone after the pack together. To descend a steep slope without crampons made it even more difficult for them to get out of the crevasse. (Source: Scott Gill, Mountaineering Ranger, Denali National Park)

## EXHAUSTION, EXPOSURE, HYPOTHERMIA, INADEQUATE EQUIPMENT, PARTY SEPARATED, WEATHER

### Alaska, Mount McKinley

On May 18, 1988, a nine member Genet Expeditions climbing team departed the 5200 meter high camp on the West Buttress of Mount McKinley and began their ascent toward the summit. Chief Guide was Vern Tejas, and the assistant guide was John Schweider. When the party reached the 5900 meter level, they split up. Schweider took the weaker members and descended back toward their high camp. Tejas continued on toward the summit with three clients: Mike Moss (49), Dave Kazel (28), and Lynne Salerno (31). After climbing several hundred feet, Salerno became tired and was unable to keep pace with the other expedition members. Tejas told Salerno she was not going to be able to continue and they both untied from the rope and