

Women on Denali and The Construction Kings, provided shelter and hot liquids for Stolpman and everyone else involved. Stolpman made use of O_2 on the traverse ascending to the 5300-meter camp; he became more coherent and stable on O_2 . The Mountain Trip party spent the night at the 5300-meter camp. Stolman slept on O_2 for nearly three hours and, by morning, his condition had improved.

At 1340 on May 20, the rescue team assisted Stolpman down the West Buttress; the Mountain Trip party remained at 5300 meters. At 1800, Stolpman reached the HLRP where he showed dramatic improvement. Upon examination, Hackett felt that the airdrop of O_2 had saved Stolpman's life as his condition had been very serious.

On May 21, the Mountain Trip party descended to 4400 meters; they continued down, with Stolpman, to Kahiltna Base on May 22. Stolpman was able to descend without assistance. (Source: Roger Robinson, Mountaineering Ranger, Denali National Park)

Analysis

Dr. Peter Hackett's opinion of the situation is that the critical period for most cerebral edema cases is overnight. Once cerebral edema victims begin to lose control, they deteriorate rapidly. The use of O_2 with victims of cerebral edema can often make the difference that determines whether an evacuation is needed or not. In this situation, rapid ascent with an unknown party was also a factor. (Source: Roger Robinson, Mountaineering Ranger, Denali National Park, and J. Williamson)

AVALANCHE

Alaska, Mount McKinley

On May 18, 1982, Don Plumb set off an avalanche on the West Rib of Mount McKinley. Plumb was traversing from the first ice dome at 4100 meters to the second ice dome at 4300 meters on the morning of May 18. As he left the first ice dome, he triggered a wind-slab avalanche with a two-meter crown and a 300-meter fracture. The slide consolidated and ran down the steep couloir of the lower West Rib. Four Swiss climbers who were just starting out of the couloir were knocked off by the avalanche and fell 200 meters in soft snow; no one was injured. (Source: Scott Gill, Mountaineering Ranger, Denali National Park)

FROSTBITE, EXHAUSTION, BAD WEATHER, PARTY SEPARATED, FALL ON SNOW, CLIMBING UNROPED, EXPOSURE, HYPOTHERMIA, INADEQUATE EQUIPMENT, INEXPERIENCE

Alaska, Mount McKinley

On May 14, 1982, an 18-member guided party from the German Alpine Club (DAV) flew to the Kahiltna Glacier to climb the West Buttress of Mount McKinley. The group was led by chief guide Herman Tauber, who was working under the Genet Concession Permit. On May 23, they made a carry from 4400 meters, to the 5300-meter camp; they then returned to camp at 4400 meters. On May 25, 17 members moved back up to the 5300-meter camp. At 1000 on May 26, 15 members departed for the summit in questionable weather conditions. Robert Mayer and

Gerhard Meissner, the second and third guides, remained behind due to a disagreement over the weather and because they did not feel properly acclimatized.

The following account of the incident was prepared by Bernhard Hinz. Hinz (a German) was climbing on Mount McKinley with his wife, Luci, in an independent group called Denali 82.

"Looking out of the tent at 0400 on May 26, our party could see only fog. At 0800 the fog had disappeared and the sky remained blue and clear. Luci and I decided to go for the top, but by the time we finished our preparations, we noticed high cirrus clouds coming in from the southeast. Luci, therefore, decided to stay in camp and I decided to climb solo, since I knew the large DAV group would be coming up too. Therefore, I left my radio and rope in our tent with Luci. Ahead of me were two Swiss climbers heading for Denali Pass; I caught up to them just below the Pass. There, at 1100, I decided to turn back because the clouds now covered the whole sky and the ceiling was only 5900 meters.

"Halfway back to the high camp, I met the DAV group. While discussing the weather, the leaders pointed out to me that the weather pattern often happens this way on Denali: clear mornings, followed by clouds, then clearing again in the evening. So I decided to travel up the slope again with the DAV group.

"When we all reached Denali Pass, the visibility was only 7–10 meters and it was very windy. At this time, one man had cold fingers; from now on, his hands had to be warmed up by a guide at each rest. From here on up, the visibility was poor and it was beginning to snow. Just below Kahiltna Horn, the DAV group divided. The man with the cold hands returned, accompanied by a guide and a woman (to whom the weather seemed too bad to reach the summit). The rest of the group continued to Kahiltna Horn and the big football field. Here we lost our way because we could not see the next wand. We continued in a southeasterly direction and ended up just below the summit's northwest wall. (I was able to see this spot when I climbed to the summit some days later.) The guide tried to climb the wall but had to stop when nobody followed in the whiteout conditions. It was very late (about 1700) and everyone knew there was no chance of reaching the summit.

"On our way down (halfway to Denali Pass), a man collapsed and was given some medicine. All the way down, he had to be supported by two men. At 2000, we reached Denali Pass; the weather was really bad (compared to European conditions): whiteout, strong winds, snowfall. The traverse route from the Pass to the high camp was covered in 20–30 centimeters of new snow which had no connection with the frozen ice. Without a rope and with most people using ski poles for support, we went down, trying to keep the direction and angle of descent correct, but all the wands had been either covered by snow or had been blown away. We ended up too high on the slope because we were trying to avoid the crevasses below the high camp.

"On the way down, I fell approximately 60 meters; on the way back up, I found a wand that I directed the group to. Two other men fell on the slippery surface. When we reached the Northwest Spur in front of the South Face, we accidentally met the three climbers from the DAV group who had left earlier from Kahiltna Horn. (The woman in this group explained to me later that they had gone down to Denali Pass. From the Pass, the guide and the man with the frozen hands were roped together but the woman wasn't. She fell just below Denali Pass and slipped approximately 400 meters. Afterwards, when trying to find the high camp, they

ended up at the Northwest Spur and decided to bivouac there.) Because it was very late and we saw no chance of finding the campsite, we also decided to stay there. Everybody looked for a rock to get behind for protection from the wind and sat down in his bivouac sack. On two occasions, two guides tried to find the high camp but without success.

"During the night we had strong, gusty wind with light snowfall but moderate temperatures (approximately -15°C). I think this high temperature is the main reason that no one died on this night. In the morning, we got a glimpse of our campsite only 800 meters away. But to go there, the woman and the two men with frostbitten hands had to be roped together and supported by guides because of the strong winds. We reached the camp at 0800 on May 27."

Directly involved with the incident at the 5300-meter camp was a five-member Park Service Mountain Patrol led by Ranger Roger Robinson. On the evening of May 26, as the intensity of the storm developed, Robinson held a meeting with the DAV assistant guide Mayer, and guide Nick Parker of the Mountain Trip party to assess the situation. Mayer mentioned that Veli Brunner and Adrian Deuschle, two members of the Swiss Party, Snoopy, had summited and returned at 1700. Their comment was, "You needed to be fast due to the weather." Around 1430, during their descent, they encountered the DAV group at 4900 meters. Brunner stated that Tauber told him he was under the impression the weather might get better. Brunner also mentioned that conditions were stormy and cold and that the Germans appeared to be very slow and exhausted.

At 2130, Robinson reported the overdue status of the DAV group to the High Latitude Research Program (HLRP) camp at 4400 meters. They, in turn, relayed the information to the National Park Service in Talkeetna. In the same radio message, Robinson also reported the amount of gear carried by the DAV group. This included approximately six ice axes (the rest of the members were using ski poles), some food and water, one rope, a minimum of one bivi sack or sleeping bag per two people, adequate personal clothing and VB boots for most of the members. The group was not carrying shovels, stoves, wands, or a radio. The HLRP reported that severe weather would continue for 24 hours. At 0700 hours, the DAV group returned to 4400 meters and assistant guide Mayer asked Robinson for assistance. The weather had cleared but the 112–160 kph winds continued unabated. All the members of the DAV group were hypothermic and several had frostbite. Robinson asked Dr. Turner Osler of the Mountain Trip party to help. Osler first checked Irmgard Frohn (44), who was suffering from back pain due to a 400-meter fall she had taken below Denali Pass. Osler thought she had several compression fractures of the vertebrae. As Frohn needed a secure place to rest, Robinson provided her with care in his party's cave.

Osler next checked Rainer Georgi (42) and Raimund Heuschkel (29). Both had serious frostbite on their fingers. Ten members of the DAV group, including Georgi and Heuschkel, found shelter in an igloo where they were secure from the weather. The NPS patrol found shelter for the remaining Germans whose tents had been knocked down by the high wind. Robinson communicated the situation to the HLRP at 4400 meters and stated that several people might need to be evacuated from that point once the storm abated.

On May 28, the weather improved and, at 1000, Robinson instructed the HLRP to call for an evacuation of Frohn, Heuschkel and Georgi. Two Army Chinooks on

standby in Talkeetna, preparing to evacuate an injured British climber at 4400 meters, would wait until the Germans arrived.

The DAV group began descending at 1200. The three injured members were each carefully assisted by a guide. Two members of the Park Service Patrol, including Robinson, also descended with the DAV.

By 1600, the DAV group reached the 4400-meter level. The condition of Frohn, Heuschkel and Georgi was reassessed by Dr. Peter Hackett, Dr. Frank Hollingshead and Dr. Holm Neumann of the HLRP. The three injured climbers were evacuated at 1700 and flown directly to Providence Hospital in Anchorage.

Frohn sustained three acute compression fractures of the vertebrae. Heuschkel and Georgi both had serious frostbite on their fingers that required hospitalization. (Source: Roger Robinson, Mountaineering Ranger, Denali National Park)

Analysis

Summary of "mistakes" (as reported by Bernard Hinz):

1. Traversing to Denali Pass without ropes (especially going down when there was 20–30 cm of new snow that had no connection with the ice).
2. Using ski poles instead of ice axes, when traversing to Denali Pass.
3. Not bringing a radio.
4. Not placing more wands from the high camp to Denali Pass.
5. The man with the frozen hand should have returned to Denali Pass and not gone on to Kahiltna Horn.
6. Instead of keeping together and digging in during the bivouac below the Northern Spur, each person sat alone in a widespread area.
7. The weather was interpreted completely wrong. Maybe Bradford Washburn's article in his book, *A Tourist Guide to Mount McKinley*, makes it sound right to climb up into lenticular clouds on the summit.
8. Not taking a shovel or a stove.

Hinz's summary provides a good analysis of part of the situation. In addition, there are several major points that should not be overlooked:

1. The disagreement among the leaders of the group on the morning of May 26, before their departure for the summit, could have played a major role in the outcome of the day. The Park Service Patrol had planned on going to the summit the same day but decided against this due to the unstable weather. The DAV group had spent only one night at 5300 meters and many of the members were feeling poorly, including the two assistant guides. Waiting an extra day or two is the best practice for proper acclimatization.

2. The guides lacked high-altitude arctic experience.

3. The DAV group misinterpreted the weather information found in Bradford Washburn's *A Tourist Guide to Mount McKinley*. A closer review of Washburn's comments on McKinley's weather indicates that two distinct weather patterns prevail: "One, the succession of storms that pass over the peak; the other, the weather generated by the great mountain itself." The DAV group mistook the developing storm front for what they figured was a daily weather occurrence.

4. Tauber descended with Frohn because she was tired; however, Frohn was not roped in with Tauber and the other client. The descent from Denali Pass to 5300 meters is no easy traverse even in good weather and snow conditions. Frohn stated

that she could not see due to whiteout conditions and that she experienced difficulty with her footing. When she slipped, she lost her ice ax and was unable to arrest herself in the 400-meter fall. She is very lucky to be alive.

5. Tauber left his party of thirteen without a guide when he decided to descend with the two weakest members. The weather deteriorated rapidly and it is quite probable that Denali Pass became impassable due to severe winds early in the morning. If the DAV party had been pinned in above the Pass, without leadership and with limited provisions (lacking stoves, shovels and bivouac gear), for the duration of the storm, the situation could have been disastrous. (Source: Roger Robinson, Mountaineering Ranger, Denali National Park)

CORNICE COLLAPSE, FALL ON SNOW, LOST EQUIPMENT, FROSTBITE, HYPOTHERMIA, CLIMBING ALONE

Alaska, Mount McKinley

On May 19, 1982, Tom Redfern (31) and Barney Dennen (19) of the Redfern Expedition to the West Buttress of McKinley were flown into 2200 meters on the Kahiltna Glacier. They reached the 4400-meter camp on May 20.

At 1245 on May 26, Dennen began a solo climb on the 50-degree ice, 400 meters west of the fixed lines. At 2000, Dennen reached the West Buttress ridge crest. In whiteout conditions, he moved east along the ridge toward the fixed line at 5000 meters. He immediately broke the cornice, fell 10 meters through the air and then tumbled 100 meters down the north side of the ridge. He lost his ice ax and pack. His pack contained mittens, Gore-Tex pants and a down parka. He used his Pterodactyl ice hammer to dig a cave while wearing only ragged silk gloves. Dennen had considered climbing back up but was too tired and the light was fading. While digging the snow cave, Dennen froze the fingers on both of his hands.

Redfern became concerned and notified the High Latitude Research Program (HLRP) team at 2100 when Dennen hadn't returned. At 2200, Redfern wanded 8-meter intervals from 4400 meters to the base of the fixed line at 4700 meters.

A storm started that evening, with 110–130 kph winds and -12°C temperatures. Dennen stayed awake all night, alternately thawing his frozen fingers in his crotch and his mouth. Spindrift avalanches swept over his cave entrance.

At 0500 on May 27, when the storm had abated, Dennen ascended to the ridge crest. On the top, he was forced to his hands and knees by a strong wind. As he was unable to use his frostbitten hands on the fixed line, he descended by wrapping his arms around it. Redfern saw Dennen on the fixed line at 0600 and started up immediately with Brian Okonek and Dr. Frank Hollingshead from HLRP.

At 0700, they met Dennen below the fixed line. He was hypothermic and his hands were frozen in a clenched position. They assisted him down to 4400 meters and treated him for hypothermia by placing warm packs on his body. His rectal temperature was 35°C and his oral temperature was 29°C . Dr. Peter Hackett, who was with HLRP, began thawing Dennen's hands and administered morphine for the pain.

At 1100, Ranger Bob Gerhard was notified of the situation by a ham radio operator, Rosemary Kendall. On May 27, at 1200, Ranger Bob Gerhard notified the Rescue Coordination Center. However, due to high winds, the Chinook helicopters were grounded until May 28 at 1300.