

on the 4th, a search was initiated for him. In the afternoon, at 1447, Melliger's body was found in a southeast-facing couloir on the east shoulder of Mount Wister. Evidence of a large, fresh avalanche was observed in the couloir and Melliger's body was eighty percent buried under snow. (Source: Peter Armington, Ranger, Grand Teton National Park)

Analysis

The avalanche forecast from the U.S. Forest Service was "Low" at all elevations and had been for at least a week. The top of the couloir, where the avalanche crown was located, is about 3175 meters in elevation. The toe of the avalanche debris was just above the pond about 2650 meters. The crown was about 12 meters below the ridgecrest.

The crown was about 15 centimeters and 30 meters long. It was a soft slab, and some of the snow along the edges moved only a meter. The slide went down the center of this shallow couloir. It was generally three to 12 meters wide until it passed the lowest rockband and was no longer in the gully. There were a couple of short rockbands in the middle of the couloir.

The victim had a working Ramar Echo 2 avalanche transceiver in the top of his pack. It had been activated.

In interviews with several of the victim's acquaintances and friends, it was learned that (1) the climb was within Melliger's technical capability, (2) he was in good physical condition, (3) he liked to climb alone and go "ultralight," (4) he had completed an avalanche course in the early seventies, and (5) he was inclined to continue to climb under hazardous conditions. (Source: Several interviews conducted by Dan Burgette and Peter Armington, Rangers, Grand Teton National Park)

FALL ON SKIS, UNABLE TO SELF-ARREST, INEXPERIENCE

Wyoming, Tetons

Mark Stewart (24), Jeff Zell (26) and William Bowman (32) had decided during the winter that they wanted to ski the east face of Teewinot. Zell said that he and Stewart worked together on May 4 from about 0600 to 1700 for Intermountain Roofers in Jackson. Zell and Stewart went to Zell's house after work and decided to leave that night to ski Teewinot. Bowman joined them around 2130, and the three completed packing their gear by 2200. Zell and Bowman said that they wanted to climb during the night to take advantage of the hard snow conditions. All three took downhill skis, ice axes and crampons. They left Jackson about 2300 and drove to Lupine Meadows.

They hiked up through the trees on the south side of the main east face gully. Their progress was made without headlamps due to the bright moonlight. They walked on hard snow and reached the Apex at 0230. They spent an hour or less at the Apex, eating and changing clothes. Zell indicated that they became a little chilled, but that none of them was tired.

They then started up the large snowfield leading up to and past (on the right) the Idol and Worshiper pinnacles. They were all wearing crampons, using their ice axes and carrying their skis on their packs. They had stopped on the snow above the pinnacles because the moon had set and it was too dark to continue. Zell stated that he wanted to turn back because he was uneasy about the hard snow and darkness. Zell and Bowman said that all three were still feeling strong, and remarked that Stewart was the strongest of all.

The three started moving again for the summit about 0530, when it became light enough to see. All were in high spirits. Zell said that he felt all right again about the terrain once it became light. All three reached the summit about 0730. Bowman and Zell said that they

spent about an hour on the summit before starting down.

All three put on their skis just below the summit. They found the snow hard and “crackly” underneath. They said that the snow was hard enough that their skis left little, if any, marks in the snow. Because of this, they sideslipped down. Bowman said that they went through one narrow, tricky section just below the summit, finding the snow hard, smooth and consistent.

Upon reaching the notch and skyline ridge south of the summit, Bowman began to side-step down because of the steepness and hard snow. Shortly thereafter, Bowman took his skis off in order to walk down this top section of the couloir. Zell took a line further to the south, and stated that he was able to keep his skis on, but did take out his ice ax because of the steepness and hard snow. Bowman moved down by moving his skis from rock to rock with his hands.

Bowman said that Stewart took the same line that he did, but he kept his skis on and didn’t take out his ice ax right away. Zell was not below Bowman and Stewart and was able to look up at them from around a corner. Zell said he told Stewart to take his skis off and take out his ice ax. He did, but Zell remarked that Stewart looked confused about how to manage the ax because he was holding his ski poles in one hand and the ax in the other.

Bowman said that he reached a narrow portion in the couloir where the rock walls were over a meter wide. In this section was a broken area of snow and rock on the floor of the couloir. This section was very short and covered a vertical drop of about two meters, though it was about the same angle as the rest of the couloir. Bowman climbed down through this, finding the going difficult because they were wearing ski boots, not mountain boots.

Bowman saw Stewart at the top of this section with his skis nearly perpendicular to the fall line. Bowman thought that Stewart was no more than 3 meters above him. Both Zell and Bowman heard Stewart say, “I’m going to try something.” Stewart then said to Zell, in essence, “Jeff, what do you think if I just jump down?”

Zell said that he again told Stewart to take off his skis and walk down. At this point Bowman was holding onto the rock wall on the north side of the couloir. Stewart disregarded Zell’s instructions, turned his skis downhill and jumped over the short broken section.

Bowman and Zell watched Stewart land on his skis below the broken section, but almost immediately Stewart fell backwards and began to slide down the steep, hard snow of the couloir.

Zell and Bowman observed Stewart attempt to use his ice ax. However, Stewart’s descent was rapid and he bounced a great deal; he was unable to arrest his fall. Zell and Bowman watched him fall/slide a long distance down the couloir.

Zell continued his descent on skis, but it took him 20 to 30 minutes to reach Stewart. Zell found Stewart unresponsive, bleeding heavily about the head and face, and without a detectable carotid pulse. Bowman was still making his way down when Zell said he left to get help. Zell proceeded down to Lupine Meadows, flagged down a car, and was driven to the Moose visitor center, arriving at 1000.

Bowman reached Stewart about 45 to 60 minutes after the fall. He observed no life signs in Stewart. Bowman could see their truck in Lupine Meadows. After about two hours, the truck was still there. Bowman thought that Zell would take the truck to report the accident. When the truck hadn’t moved in two hours, Bowman was afraid that something had happened on the way down. That’s why he too left the scene. Bill Bowman arrived at Beaver Creek at 1153. Bowman provided information that confirmed Zell’s initial report.

At 1215 Ranger Burgette reached Stewart and confirmed that he was dead. At 1245, Burgette and Patterson completed preparations to sling load Stewart’s body and the heli-

copter left Beaver Creek for the scene. The ship brought the body out to Beaver Creek at 1300. The operation was concluded at 1320. (Source: Reports and interview by Peter Armington, Ranger, Grand Teton National Park)

Analysis

Zell and Bowman both characterized Stewart as an expert downhill skier. In the previous three weeks, Stewart had skied the east face of Buck mountain twice, once with Zell and once with Bowman. Bowman said that Stewart had skied the Skillet Glacier on Mt. Moran in 1984.

Bowman said that Stewart had borrowed the ice ax and crampons that he used on the climb. He said that none of them were technical climbers and that all three of them had minimal training and qualifications with an ice ax and crampons. (Source: Interview by Peter Armington, Ranger, Grand Teton National Park)

FALL ON ROCK, INEXPERIENCE

Wyoming, Yellowstone National Park

On June 19, 1985, Albert Knight (22) and David Languilli (21) were ascending the Cutoff Mountain Ridge by bushwacking on a route parallel to a maintained trail. They reached an area of high angle conglomerate rock which became vertical further up. While route finding, they separated but maintained voice contact. Languilli turned back in his attempt, and soon after lost voice contact with Knight. Knight was apparently ascending a gully in vertical, rotten, conglomerate rock when he fell approximately 30-35 meters to his death. (Source: Michael Robinson, Ranger, Yellowstone National Park)

Analysis

Knight was a hiker and a fisherman. He and his companion had avoided the obvious trail so as to challenge themselves. There may have been some competitiveness on Knight's part, as he was showing Languilli the country. Inexperience and a purposely sought challenge appear to have inspired Knight to continue in very hazardous rock when Languilli turned back. (Source: Michael Robinson, Ranger, Yellowstone National Park)

(Editor's Note: Another hiking situation which turned into a need for climbing skills. This is not a climbing accident or statistic, but presented for what it is.)

FALL ON ROCK, INADEQUATE EQUIPMENT—BOOTS

Wyoming, Tetons

On July 27, 1985, at 2020, Quint Barney came to the Jenney Lake Ranger Station and reported an accident on the Skillet Glacier on Mt. Moran. Barney stated that he had climbed the CMC route on Moran that day with David Card (21), Doug Plowman and Brad Nye. Barney stated that the group had rappelled down two rope lengths from the top of the handle on the Skillet Glacier, intending to use the glacier as a descent route off the mountain.

At 1800, according to Barney, Card had just completed the second rappel and started to plunge step down with an ice ax. Barney stated that Card took five or six plunge steps and then fell down. Card immediately started to slide down the steep snow of the glacier. Barney said that Card made repeated efforts to self-arrest, but was unsuccessful.

Card slid about 300 vertical meters down the handle of the Skillet. He eventually struck,