

small Stoppers that were placed side by side in a horizontal crack about two meters from the #8 Stopper. It was difficult for me to get a good placement for the two small nuts in the horizontal crack. Right next to this placement was a good placement for a #2 Friend, but Lloyd didn't bring anything that big.

When Blackwell fell, this anchor failed and fell to the ground attached to the belay rope. In reconstructing this anchor, the only way I could get it to fail was to assume that the #8 Stopper loosened and slid deeper into the crack. If it did this, it easily slipped through the crack and fell out the bottom. If this happened, the load would be put on the two small Stoppers. I was able to place them so they seemed secure; but they pulled out when jerked hard.

This accident points out that nuts do wiggle loose unless they are set, or better yet, backed up by other pieces. (Source: Dan Burgette, Ranger, Grand Teton National Park)

FALL ON ROCK, CLIMBING UNROPED, UNABLE TO SELF-ARREST, INEXPERIENCE

Wyoming, Tetons

On July 14, 1986, Steve Adkison (24), Abigail Mackey (21), Nicola Rotberg (20), Andrew Lewis (20), Herminio Delgado (21), and Alicia Zbehlik (22) set out to climb the Skillet Glacier route on Mount Moran. They traveled across Jackson Lake by boat from Signal Mountain Lodge and began the ascent at 0800. Along the way they stopped to practice self-arrests with their ice axes. (Adkison was the only member of the party with previous snow climbing experience.) Delgado and Zbehlik turned back at the bergschrund on the Skillet Glacier about 1200, and the remaining four continued the ascent, arriving at the summit around 1530.

The group began the descent about 1600. About 1615, they were descending the steep snow in the narrow couloir that leads to the main "handle" of the Skillet. Adkison was going first, followed by Mackey, Rotberg, and Lewis in that order. According to Lewis, he slipped out of the steps and did a self-arrest, but in the process knocked Rotberg off her feet and she fell, unable to self-arrest, the entire length of the handle and into the moat below the rock island at the bottom of the handle. The fall was from about 3680 meters to 3190 meters.

Adkison began to glissade to try to reach Rotberg as fast as possible. Then Mackey also slipped and repeated Rotberg's fall, knocking Adkison down on the way. He was able to self-arrest and then continue under control down the handle before stopping. Then he fell off once more and lost his ax but was able to stop before hitting the rock island.

It should be noted that the three who fell all lost their axes and were sliding down the avalanche trough in the middle of the handle. The snow in the trough was considerably harder than the surrounding snow.

Adkison descended the moat and was able to extricate Rotberg. Mackey was further down in the moat and appeared to be dead. By this time, Lewis had made his way past the bergschrund and he continued down to tell the others of the accident. He found them below the glacier and sent Delgado back up to help. Lewis and Zbehlik then continued the descent to seek help. They reached the lakeshore sometime near 1900 and decided to wait for their boat ride which was scheduled to arrive at 2000.

In the meantime, Adkison had carried Rotberg to the bottom of the glacier where he met Delgado. They rigged a sled out of sleeping pads and rope, and dragged Rotberg

down the snow to an elevation of about 2540 meters. Adkison stayed there with Rotberg while Delgado descended to the lake where he met the others and they all returned to Signal Mountain on the boat. Delgado called dispatch to report the accident at 2025.

Rangers Rickert and Jackson were flown to the scene in a Bell 206L-3 helicopter piloted by Ken Johnson of Mountain Rotors. They rappelled to the victim at 2110 and performed first aid (applied K.E.D. and C-collar). The helicopter returned with the litter, and the victim was evacuated using the "short-haul" technique at 2140. She was transferred to the inside of the helicopter at the Cathedral Group scenic turnout and flown directly to St. John's Hospital in Jackson, arriving there at 2210.

The following morning, beginning at 0640, Rangers Larson, Johnson, Gagner, Perch, Woodmency and Burgette were flown to the moraine of the Skillet Glacier in three separate flights. They rappelled to the glacier, since no safe landing site was available. Equipment was delivered in a sling load and the rescue team climbed to the accident scene to extricate Mackey. This was accomplished by 1005. The body was transported down the glacier to the moraine where it was picked up in a helicopter sling load and returned to Lupine Meadows at 1100 where it was turned over to the coroner. (Source: Peter Armington and Bob Irvine, Rangers, Grand Teton National Park)

Analysis

Interviews with Nicola Rotberg and Steve Adkison brought out the following points. Rotberg realized she was inexperienced, but felt fine on the ascent and was not nervous until she fell. She can't remember why she fell. She tried to self-arrest, but the pick wouldn't hold in the soft snow. She eventually lost both her ice ax and gloves during the fall. The wrist strap on her rented ax was on at the time, but not tightened up on her hand.

Adkison had two 22 meter ropes, but didn't use them because he said no one seemed nervous, and he had not used a rope on his 1985 ascent. He said they had tried to rent helmets, but no place had them available.

He said that he and Mackey were feeling the effects of altitude and had headaches. He felt that none of the party was nervous about the descent. Adkison told us that he never considered the possibility of what might happen if someone fell on the handle and could not stop. He said his only concern prior to the climb was the length of it and the physical stamina needed.

This route is not a good one for inexperienced climbers, especially ones on their first snow outing. (Source: Peter Armington, Ranger, Grand Teton National Park)

FALL ON ICE, PLACED INADEQUATE PROTECTION

Wyoming, Tetons

I, Doug Bringham (28), was climbing the Black Ice Couloir in Grand Teton National Park on August 9, 1986, with Hal Throolin (37). We were alternating leads on the ice. We had climbed about four 45 meter leads. I was leading and had run out about 41-42 meters of rope and hadn't placed any protection. I had stopped at a fixed pin and placed my hammer (Forrest Mjollnir III with alpine pick), which was attached to me with a shoulder sling. I placed my ice ax (MSR Sumner) and pulled my hand out of my mitt, leaving the mitt in the wrist loop. I was not then attached to the ice ax. I had my front points in the ice (Salewa hinged crampons on Galibier Vecors boots), had my hip/back leaned against a steep rock wall just downhill of the fixed pin, and was reaching up with a carabiner and sling to clip into the pin. The pin was quite high above the ice and