

Analysis

Expedition leader Peter Dutrievoz reported that Pertuis' fall into the crevasse was slow and nondynamic and that she did not experience any pain until she was pulled out of the crevasse. Injuries might have been avoided if more time and less force were used in extracting Pertuis from the crevasse.

Evacuation of all six members was not necessary. Dutrievoz stated he did not want to send Pertuis out alone due to her anxiety and language barrier and that group morale was too low to continue. Neither of these reasons would warrant evacuation of more than the injured person in most rescue situations in the Alaska Range. However, this appears to be a difference in perception by Europeans, who are used to frequent helicopter evacs (NB: 800 missions a year average out of Zermatt alone), and who have rescue insurance. (Source: Billy Shott, Mountaineering Ranger)

(Editor's Note: This provides us with another example of why we should charge such parties for the costs of rescue.)

16' FALL INTO CREVASSE—WITH WATER AT THE BOTTOM, UNABLE TO EXTRICATE—INADEQUATE PEOPLE POWER, HYPOTHERMIA Alaska, Mount McKinley, West Buttress

On June 21, a guided party, led by guides Chris Morris and Stacy Taniguchi flew onto the Kahiltna Glacier to begin a climb of the West Buttress route. Among the seven clients was Dennis Gum. During the following 14 days the group progressed up to the 14,200 foot level. While camped at 11,200 feet and 14,200 feet Dennis Gum was having difficulties sleeping due to chain stokes breathing. Making a carry to the 16,200 foot camp on July 4, Gum became exhausted and decided to retreat. He was accompanied by Taniguchi to the 14,200 foot camp. On July 5, Taniguchi and Morris decided to have Gum leave the mountain. Due to the location of the team at 14,200 feet, it was not feasible to have a team descend with Gum and then attempt to return. So it was decided that Taniguchi would descend along with Gum, and depart the mountain as well.

Taniguchi and Gum departed the 14,200-foot camp at 1145 on July 5. By 1800 they were at the 8,000 foot level where Taniguchi decided to stop in order to rest, eat, drink and wait for the coolness of evening to firm up the snow. At 2330 it began to snow and Taniguchi decided to continue their descent to avoid losing the trail even though the surface snow had only a slight crust. The duo recommenced traveling at 0030 on July 6. They were both on snowshoes, with Taniguchi traveling in front. Whiteout conditions persisted as they followed the trail. Taniguchi remembers taking a break at 0430.

At some point during the following hour Taniguchi punched both legs through a snow bridge and was able to crawl out. He instructed Gum to maintain a tight rope and not to follow his tracks at that point. When he arrived at the hidden crevasse, Gum opted to attempt crossing several feet to the west of the trail and when he stepped onto the snow bridge it failed, sending Gum into the crevasse. Due to the weight difference (Gum is approximately 80 pounds heavier, and gear added another 40), Taniguchi was unable to arrest the fall. Gum fell approximately 45 feet and landed in water. Taniguchi was able to use a picket and ice ax to make an anchor, escape the belay and go to the edge to investigate. At first he could only make voice contact due to the darkness in the hole, so Taniguchi lowered a parka and mittens and instructed Gum to begin ascending the rope. The mittens did not fit and Gum could not make his ascending system work, so Taniguchi began

heating water and setting up a haul system. Taniguchi was unable to raise Gum, so he instructed him to sit on his pack and sled to be out of the water. For the next four hours Taniguchi concentrated his efforts on heating water for Gum, which he would lower into the crevasse in a thermos, talking with him to maintain Gum's consciousness and calling for help on the CB radio. Several planes flew over, but Taniguchi's call was not hailed.

It was approximately 0950 when Joe Reichert heard the Mayday call on the radio. Reichert reported the call to the Talkeetna ranger station and requested that the LAMA rescue helicopter launch, earlier than its 1100 hour scheduled mission, to provide back-up for the ground rescue. Taniguchi and Reichert talked several times on the CB about patient condition and gear requirements. Reichert and Nancy Juergens packed rescue gear, fuel and a synthetic, medical sleeping bag and departed base camp on skis at 1025. Reichert and Juergens arrived on scene at 1050. Juergens unpacked and sorted gear while Taniguchi belayed Reichert to the lip of the crevasse where Reichert surveyed the accident and established communication with Gum. Deadman-style anchors were constructed using skis and pickets. The hole on the downhill edge of the crevasse was enlarged and the edge was padded with skis. Reichert then lowered Gum a new rope and instructed him to clip in. Taniguchi, Reichert and Juergens were then able to raise Gum out of the water utilizing a Z-system for mechanical advantage.

At 1130, the LAMA was on scene rigged for a short-haul operation. Reichert lowered the short-haul line to Gum who connected it to his waist harness. As the LAMA raised Gum further, Reichert observed that Gum was horizontal and his backpack and sled were hanging off him. Reichert instructed the LAMA to hover, instructed Taniguchi and Juergens to take up the slack on the primary haul system, and Reichert rigged a rappel line and descended to Gum. On his way down Reichert cut the original rope because it was through the original hole and in the way of the operation. Upon reaching Gum, Reichert secured himself to the rappel rope and hooked into the short-haul line. Reichert then cut the pack and sled free from Gum and lifted his torso into an upright position. Reichert instructed the LAMA to start raising as he held Gum's legs from below to maintain the upright position. With Taniguchi at the hole giving hand signals and Reichert on the radio, Drury was able to slowly bring the two safely to the surface. Gum and Reichert were set down on the snow and the LAMA landed, Gum was loaded aboard the ship and flown to base camp where Kreuzer and Drury transported him to the weatherport using a cascade litter, removed his clothes and packaged him in multiple sleeping bags with numerous hot water bottles. Drury then returned to pick up Reichert, Taniguchi and Juergens.

Between 1200 and 1430, Gum was treated for hypothermia. His vital signs were recorded at regular intervals and a secondary examination was performed by Reichert to investigate possible additional injuries. Gum complained of lower back soreness and had a large bruise on his left leg quadriceps muscle. At 1446 Gum was transported via Pavehawk helicopter to Alaska Regional Hospital.

Analysis

Gum developed hypothermia because he was in the crevasse and wet for over five hours. The contributing factors to this serious situation were falling into a crevasse and the not being able to perform an extrication. On this particular day when the surface snow had not frozen the group knew that crevasse hazards were high. Therefore extra care could have been taken by Gum to probe with his ski pole, especially in light of Taniguchi falling in just before him. Once the accident occurred it was Taniguchi's responsibility,

as the leader, to make an extrication happen. The substantial difference in weight made this very difficult. Extra people power would have resolved this problem, hence the decision by a guide to travel on the glacier with only one client, although many teams of two climb McKinley each season, must be evaluated more thoroughly in the future. Perhaps Gum could have waited at a higher camp for the group to make their summit attempt and then descend as a team.

Despite having practiced ascending a rope at the beginning of the expedition, Gum encountered complications that he could not overcome to ascend out of the crevasse himself. Taniguchi attempted to rig a Z-pulley system but due to limited gear he could not build enough mechanical advantage to raise Gum. While in the crevasse Gum could have helped his situation by putting on a fleece hat that was in a side pouch of his pack and eating snacks from the top of his pack. One medical complication which was discovered at the hospital was that Gum's potassium level was ten points below normal. This occurred because he ingested such a large quantity of hot water. The warmth provided by this water undoubtedly contributed to his survival, but the addition of a flavor mix to the water would have helped even more. (Source: Denali National Park—Talkeetna Subdistrict Ranger Station)

RAPPEL ERROR—ROPE NOT ANCHORED, NO BELAY

Arizona, Oak Creek Canyon

On April 13, Benjamin Rusev (19) fell 75 feet down a cliff in Oak Creek Canyon. At the time, he was attempting to rappel. Rusev's partner tried to grab the line after Rusev began falling.

Many other people were climbing in the area—one of the most popular climbing spots near Flagstaff—when Rusev fell. (The overlook is about eight miles south of Flagstaff.) One of them was a registered nurse, Jeff Davis, who works at Flagstaff Medical Center. Davis and other climbers cared for Rusev while rescue teams headed to the scene. Eleven members of the Coconino County Sheriff's Search and Rescue Team responded, as did Kachina Village firefighters and an Arizona Department of Public Safety air-rescue team. (Source: *Arizona Daily Sun*, April 4, 1996)

(Editor's Note: Angelo Kokenakis, a mountain guide from Flagstaff, reported in a letter that the usual beginning climbing area of this crag had been closed off for safety reasons—to protect the non-climbing public who use the crag as a vista lookout. So these neophytes were actually using an unknown 80 foot crag rather than the established 30 foot beginner area.)

CLIMBING ALONE and UNROPED, DISTRAUGHT

Arkansas, Sam's Throne

On October 12, Chris Harris (23) was soloing at night on Instant Trauma (5.10a) when he fell 75 feet to his death.

Analysis

Harris came out late in the afternoon, and was supposed to meet friends. But they didn't show up. He took all his gear—rope, solo aid device, etc.—and laid it out neatly at the bottom of the cliff. However, when he was found, it was obvious that he didn't