

ter from the uphill position, placing them in jeopardy of walking into the rotor blades. The helicopter had to lift off where Phillips was able to indicate a proper approach for one person at a time, picking up Kang first. The other members, Jae Chul Kim and Bong Gyo Jun were picked up on subsequent landings, all being transported to the 14,200 foot Ranger Station on the West Buttress. At 1729 all three Koreans were picked up by the Army's Chinook helicopter at the 14,200 foot camp and transported straight to Humana Hospital in Anchorage.

Kang had frostbite to all ten fingers and three toes. The other members, Jun and Kim, received minor frostbite on several of their toes.

Analysis

In the weather conditions encountered, it is important to remember to collapse one's tent before leaving it to dig a snow cave. The subsequent loss of food and fuel in this case created a very serious dilemma. The three had indicated they would have tried to go either up or down if they could have received the air drop. Considering Kang's condition, this would have been very difficult.

During the rescue, their approach from the uphill side of the helicopter could have been fatal. Before approaching a helicopter, make sure the pilot has given the okay to proceed toward the ship. Never approach or exit a helicopter from the uphill side. (Source: Roger Robinson, Mountaineering Ranger, Denali National Park)

SNOWBRIDGE COLLAPSE, INADEQUATE EQUIPMENT, PROBE POLE

Alaska, Mount McKinley

On May 17, about 1600, a snowbridge over a crevasse collapsed while three members of the Je Ju University expedition were preparing a campsite around 15,000 feet on the West Buttress of Mount McKinley. Mr. Duk Sang Jang was uninjured and able to descend to 14,000 feet. At 1730, Jang notified Mountaineering Ranger Ron Johnson of the incident. Due to a language barrier it was difficult to ascertain the specific details of the incident. Because of another incident in progress on the Cassin Ridge, a decision was made to send NPS, VIPs Matt and Julie Culberson and volunteers Jim Wickwire and John Roskelley to the incident site. Johnson remained at the NPS Ranger Camp in order to stand by for the Cassin incident and provide backup for the crevasse rescue team.

The Culbersons left 14,000 feet at 1750 followed by Roskelley and Wickwire at 1800. Route finding was difficult due to poor visibility caused by snow and blowing snow. Wind gusts of up to 40 mph and a temperature of 0° F made the ascent to the crevasse site difficult. Around the same time, unknown to NPS personnel, four other members of the Je Ju University expedition left 14,000 feet to attempt a rescue of their companions. The rescue parties arrived at the site of the incident approximately 1920.

They found that the collapsed snowbridge had exposed part of a crevasse that was approximately 40 feet wide, 200 feet long and 60 feet deep. A staging area for the rescue was established on the downslope side of the crevasse on a slope angle of about 35 degrees. Because of concerns about the language barrier and the skill and condition of the Korean rescue team, it was requested that they not become actively involved in the rescue.

Mr. Seong Yu Kang (26) was observed in the bottom of the crevasse. He was upright but buried to his chest by the debris from the collapsed snowbridge. The rescue team was concerned about the unstable snow conditions, the overhanging upper wall of the cre-

vasse and the possibility that the debris that made up the floor of the crevasse was unstable. They decided that it was reasonable to descend into the crevasse. Matt Culberson and Roskelley were belayed into the crevasse. They were able to dig Mr. Kang out of the debris. He was then extricated from the crevasse by Julie Culberson, Wickwire and one of the Korean climbers. A "Z" pulley rescue system was used to facilitate the extrication. Mr. Kang was uninjured.

Culberson and Roskelley then located Mr. Dong Choon Seo (27), who was on his side and partially buried by the debris. His foot and shoulder were exposed. His head was partially buried by a block of snow.

Culberson and Roskelley realized that they would need additional help and a litter to facilitate Mr. Seo's extrication. Johnson was notified of the request. He and volunteers Brian Okonek and Bruce Blatchley left 14,000 feet at 2030. They arrived at the incident site at 2130 with additional rescue gear, including a SKED litter. Culberson and Roskelley, using a shovel and snowsaw, worked to free Mr. Seo from the snow debris. Mr. Seo was conscious and hypothermic with suspected internal injuries, including injuries to his lumbar spine and pelvis. He also had lacerations on his head and in his mouth. Because the weather was still poor with continued snowfall, Culberson used his body to shield and protect Mr. Seo.

About 2150, Blatchley descended to 14,000 feet with Mr. Kang and three members of the Korean rescue team. They were suffering from mild hypothermia and their presence made working at the incident site difficult.

Johnson prepared the SKED and lowered it into the crevasse. Culberson and Roskelley packaged Mr. Seo into a sleeping bag and then placed him into the SKED. About 2220, Mr. Seo was extricated from the crevasse by Julie Culberson, Wickwire, Okonek and Johnson using a "Z" pulley system. Matt Culberson and Roskelley were able to climb out of the crevasse.

While some members of the rescue team attended to Mr. Seo, the other members dismantled the raising system and set up a snow lowering system. The team then lowered Mr. Seo to 14,000 feet. The lowering required two 300 foot technical lowers and was hampered by bad weather and poor visibility. The team arrived at the NPS Ranger Camp at 2330, where Mike Young, M.D., and Dan Mazur were waiting. Mr. Seo's suspected problems included: hypothermia, cold injury to his feet, internal injuries, and injury to the pelvis. Mr. Seo was rewarmed, I.V. fluids were administered, a Foley catheter was inserted, and oxygen was administered. The evaluation and medical procedures were done under difficult conditions. Light was provided by three small flashlights, some of the medical equipment had to be improvised and modified, and the language barrier with the patient made assessment difficult. Mr. Seo was monitored throughout the night by Young and Mazur. From 0300 until 0900, Johnson and the Culbersons took shifts working with Young and Mazur.

On May 18, 1992, a break in the weather allowed Mr. Seo to be flown from 14,000 feet to 7,000 feet aboard the NPS Lama helicopter. At 7,000 feet, Mr. Seo was transferred to 210 Air National Guard Pavehawk helicopter. He was flown to Humana Hospital in Anchorage, where he was diagnosed as having severe dehydration, a bruised liver, severe tongue lacerations, minor frostbite to his feet and other minor injuries.

Analysis

Carefully probing for crevasses while on belay is important to do before establishing a camp. Given the thickness of the snow bridge which collapsed, it is possible that probing

with only an ice axe would not have revealed a crevasse. This builds a strong case for using longer probe poles when traveling on Alaska glaciers, particularly in heavily crevassed areas.

Additional Note: Seo attempted suicide while in the crevasse by biting his tongue. It was later learned through an interpreter that Seo was in a great deal of pain, and without being able to move attempted to commit suicide by the only means possible. His tongue had numerous deep lacerations, some full thickness, which were described by attending physicians as his most serious wounds. The tongue injuries had compromised his airway. (Source: Ron Johnson, Mountaineering Ranger, Denali National Park)

(Editor's Note: This narrative is included primarily to indicate the level of complexity involved in some rescue efforts. Furthermore, without the good will and skills of the other climbers—quite noteworthy ones in this case—and VIPs, the victim might not have survived.)

FALL ON SNOW, DESCENDING UNROPED, EXCEEDING ABILITIES

Alaska, Mount McKinley

At approximately mid day on May 20, 1992, Soo Yang Yung (29), Sung Tak Hong (26) and Seong Jong Jin (25) from Korea were killed while attempting to descend the Orient Express route on Mount McKinley. The three fell several thousand feet to the 15,800 foot level. On May 23, the three victims were extricated from the 15,800 foot location by the NPS contract LAMA helicopter and transported to the Kahiltna basecamp. From here they were flown to Talkeetna.

Analysis

A Fantasy Ridge guided party led by Chip Faurot was camped near the three at several of these locations. Faurot commented that he noticed the Koreans “were not comfortable on the terrain, especially exposed off camber ice.” Faurot observed Hong fall several times while ascending Fantasy Ridge’s fixed line at 12,800 feet. After several days of stormy weather, the three moved to 15,200 feet. The Koreans had plans to traverse down to the 14,200 foot camp on the West Buttress from their camp at 14,800 feet, but unfortunately found they were in the wrong place. On this same day, the three other members that were ascending the West Buttress made an attempt to meet up with the three on the Rib in order to give a hand assisting the Rib team down to the West Buttress route. It appears the three Rib climbers were not certain where they were on the route as discrepancies were discovered. Their reported locations were often 1000 feet off of what they told their West Buttress party compared to what was observed by Faurot. The three on the Rib indicated they were at 17,200 feet when actually they were at 15,200 feet. From May 14 through May 16, they encountered strong winds which kept them tent bound. By May 16, they reported two to three days of food left. The weather improved on the 27th where the three ascended to 16,200 feet. They took a rest day on the 18th where their West Buttress team suffered a serious crevasse collapse forcing the evacuation of one of their members. At an 0800 radio call on May 19, the Rib team indicated they would be making an attempt for the summit this day. Due to the circumstances with the accident the night before, the West Buttress team requested that the Rib team descend back to the 14,200 foot camp on the West Buttress. The Rib team declined and indicated they would try for the summit and hoped to be on top by 1600.