A group of NOLS instructors left for the summit on the same day as the Koreans. Willie Peabody of the NOLS group passed the Koreans at 16,500 feet on the 19th. The Koreans, like the NOLS group, had full packs and were planning on carrying everything to the plateau (19,500 feet), then descending the West Buttress. The NOLS group reached the plateau and encountered extremely cold and windy conditions with poor visibility. They descended the West Buttress after seeing the Koreans for the last time at 17,900 feet on the West Rib.

The West Buttress Koreans received no communication from the Rib team until 1000 on the 20th. On this call they reported that they had not reached the summit and were in a snow cave because of very strong winds. Their tent was damaged, they were out of food and indicated that they would be descending down to the 14,200 foot camp this day. This was the last communication with the Rib team. Since they were last seen at 17,900 feet, their camp was most likely high on the West Rib in a very exposed area.

This descent route is no easy escape route even in good weather without heavy packs. The trio succumbed as a result of making the same fatal mistake that has taken a dozen other climbers in the last 20 years. (Source: Roger Robinson, Mountaineering Ranger,

Denali National Park)

SNOW LIP/BRIDGE COLLAPSE—FALL INTO CREVASSE, INADEQUATE BELAY, WEATHER

Alaska, Mount McKinley

On May 4, 1992, Mugs Stump (41)—a guide for Mountain Trip—and his clients Nelson Max (40) and Robert Hoffman (45) began climbing the 1965 Japanese Ramp Route on the South Buttress of Mount McKinley. The team established a base camp on the upper part of the East Fork of the Kahiltna Glacier and made at least one carry of food and equipment up the Ramp before moving their camp onto the South Buttress. The Ramp, a steep and crevassed glacier that descends the South Buttress from 15,600 feet and feeds into the East Fork about 11,600 feet, is known for its objective hazards from crevasses, ice fall, and avalanches. On May 20, Stump and Max reached the summit of Mount McKinley via the Southeast Spur Finish in extremely adverse weather conditions.

On May 21, about 1130, Stump and his clients began their descent from high camp at 16,000 feet on the Southeast Spur in generally good weather. At 1300 they began descending the Ramp. First on the rope team was Hoffman, followed by Max, who was tied in a short distance behind, and Stump at the end of the rope with a greater length of rope between him and Max than between Max and Hoffman. There were no tracks left from their ascent, and Hoffman followed Stump's directions for route finding. They crossed a large slope beneath and slightly south of some seracs and an ice cliff as they approached a large crevasse. Hoffman stated he felt they were at a point further left of where they crossed this crevasse on their ascent. He stated that Stump had a sense of urgency to get off the slope and away from the avalanche path overhead. The air temperature had warmed and snow conditions were soft. Hoffman stopped near the edge of this crevasse, unsure of how to proceed. Stump approached the crevasse from uphill, passing by Max and Hoffman, to inspect the route. He was standing on the uphill lip of the crevasse and appeared to be inspecting a flimsy looking snowbridge. Hoffman said that he heard a "crack," and then Stump suddenly disappeared into the crevasse. He pulled in approximately 15 feet of slack rope between him and Max before Max was pulled off his feet. Max attempted to self-arrest, but was pulled toward the crevasse for approximately 20 feet before stopping. The rope between him and Stump became slack, and there was no

longer force pulling Max down.

Max and Hoffman anchored the climbing rope. They attempted to contact Stump by yelling, but were without success. At this time, about 1330, the weather deteriorated with clouds and poor visibility. Feeling in a very precarious position on the uphill side of the crevasse, they cut the rope and tied it to a ski pole. They traversed around to the right to

cross the crevasse and approached the accident site from below.

Hoffman stated that a large portion of the crevasse lip, approximately eight feet wide by four feet long and ten feet deep, had caved in. This volume of hard snow and ice was wedged into the crevasse as it tapered in at a point approximately 35 feet below the upper lip and 25 feet below the lower lip. The crevasse was ten feet wide at the top. Approximately two hours after Stump's fall, Max rappelled into the crevasse. He described the debris as a large volume of very hard and dense snow and ice about 15 feet deep. Large blocks were wedged into the crevasse. The climbing rope entered the debris from the top. There was no sign of Stump or the rope from beneath the debris. The crevasse was at least 60 feet deeper from the bottom of the debris. Max attempted to dig through the snow and ice and along the rope to find Stump, but without success. He pulled on the rope and yelled for Stump, but there was no response. Max and Hoffman felt that it was almost impossible for a person to survive such a fall and burial by the blocks and debris. Max felt that by digging further, he was in danger of loosening the blocks and being buried himself. Because of the perceived danger, their condition, the weather, and low probability of survival, Max and Hoffman decided to abandon their efforts to find Stump.

It was getting late in the day as Max and Hoffman continued their descent off the Ramp. In poor visibility, and dehydrated, frostbitten, and unsure of the route down from

having lost their guide, they decided to camp for the night.

On May 22, Mark Bunker and Don Preiss, who were camped at 11,400 feet on the East Fork, heard distress calls from Max and Hoffman. At 0830 they began climbing up the Ramp and met Max and Hoffman at 12,600 feet. At 1300, Preiss reported the incident on CB radio to Gary Bocarde on the West Rib, who relayed the message to basecamp. Bunker and Preiss assisted Max and Hoffman in descending to camp at 11,400 feet.

At 1400, Ranger Jim Phillips and pilot Jim Hetton evacuated Max and Hoffman from 11,400 feet on the East Fork with the NPS Lama helicopter. Hoffman and Max had frostbite and were exhausted. The climbers showed Phillips the location of the accident at 14,700 feet on the Ramp. Hoffman and Max were then flown to basecamp and then to Talkeetna.

At 1435, Rangers Jim Phillips and Renny Jackson, in the NPS Lama helicopter, returned to the accident site at 14,700 feet on the Ramp. They observed the crevasse with Stump's climbing rope tied off to a ski pole above the crevasse. A large volume of debris with big chunks of snow and ice was wedged into the crevasse as Hoffman and Max had described. They hovered over the crevasse, looking for any sign of life. Due to the location and elevation of the nearest landing zone (16,000 feet), the fact that the incident occurred more than 25 hours earlier, and the exposure of rescuers to excessive hazards, a rescue/recovery effort was not initiated.

Stump's body remains buried on the mountain. Max was admitted to Humana Hospital in Anchorage for treatment of frostbite on both feet.

Analysis

This accident illustrates the hazards of climbing on glaciated terrain even for the most competent of mountaineers. Even when climbers are roped, crevasse falls can be fatal.

Slack rope between Stump and Max caused Stump to fall an excessive distance. A belay in this case would have provided a more secure rope system for stopping the fall. The size of crevasses on Alaska Range glaciers can be deceiving because of large overhanging lips. (Source: Jim Phillips, Mountaineering Ranger, Denali National Park)

FALL ON SNOW, INADEQUATE BELAY, WEATHER

Alaska, Mount McKinley

On May 17, 1992, the Canadian "GT-92" expedition departed from the Southeast Fork of the Kahiltna Glacier at 7,200 feet. They spent the next five days reaching the 14,000 foot camp. After spending five days there, they proceeded to 16,200 feet for one day. On May 29, they moved to 17,200 feet. On the 30th they attempted to summit, leaving camp at 1200. The weather at the time was very windy with winds coming from the northeast at 20-25 mph. The ambient temperature at the time of the departure was 0o F. The group proceeded to Denali Pass and apparently attempted the West Buttress route. They were observed below Arch Deacon's Tower at 18,700 feet by several groups at 1645. They appeared to have on all of their high altitude equipment, including face masks. The route was well wanded (100 feet between markers on the Football Field). The weather remained windy, estimated between 20 and 30 mph, with the ambient temperature still at 00 F. The group wasn't observed again until 2200, when they were seen by Gerald Guidroz, a member of the expedition "New World Order," descending the Summit Ridge at 20,000 feet. The weather at 17,200 feet had started to deteriorate, with the winds gusting up to 50 mph. Throughout the rest of the night, the weather continued to deteriorate, with winds at 17,200 feet in excess of 60 mph.

On the morning of May 31, Annie Duquette (Kahiltna basecamp manager) was notified by an expedition at 17,200 feet that the group "GT 92" had not yet returned from their summit attempt. Duquette informed the NPS Mountaineering Rangers in Talkeetna of the overdue expedition. The weather prevented an overflight of the summit area. At 1200, the weather cleared and an aerial search was launched at 1230. Ranger Roger Robinson and Pilot Cheri Fleming flew over the search area and spotted a group of four climbers roped together traversing around 19,200 feet on the Messner Coulior. This group was believed to be the Canadian Team "GT 92." The NPS patrol at 14,000 feet led by Ranger Daryl Miller was alerted by Robinson as to the whereabouts of the expedition, and Miller was able to locate the group with the use of binoculars. At 1437, Miller saw the rear climber in the group fall, dragging the other three members of the rope team down. They continued falling through the first rock band. The rope appeared to be severed. The expedition was still falling, even after a member had been separated from the rest of the group and was tumbling down the slope by himself after the rope was cut on the rocks. The group fell approximately 3,000 feet to 16,000 feet in the Messner Coulior.

About 1500, Billy Shott, Mike Abbott, Colin Grissom, and Ranger Daryl Miller, members of the NPS patrol at 14,000 feet, departed for the accident site. At 1735, they reached a backpack at 15,500 feet. Visibility was less than 25 feet with no visible sighting of the victims. Snow conditions on the slope were extremely unstable, and the patrol unanimously concurred that it was too unsafe to continue the search at the time. At 1822 they

turned around

On June 1 at 0700, Miller talked to South District Ranger J. D. Swed in Talkeetna and decided to make another rescue attempt. At 1025, Shott, Abbott, Grissom, and Miller left the 14,000 foot camp and progressed to the Messner Couloir. At 1305, the patrol arrived at the accident site where they discovered three bodies at 16,000 feet and one body at