a knife and cut a hole in the top of the tent, then thrust a hand up out of the snow which helped in his location.

The weather at this time was clear. It had been snowing the night before, but the gullies above where the slide occurred were blue ice and nothing was accumulating due to the steep angle. The snow was sliding down the gullies and accumulating below the bergschrund, the site of the eventual release.

The four tents struck by the avalanche were destroyed. The last person dug out was hypothermic and in shock from being buried for so long. Another had frostbite with small blebs on one finger from digging out people and gear. Several people in the group reported coughing up blood from the exertion of digging and bruised lungs from the debris. Two ice axes and one harness were lost; all other gear was found after extensive probing.

The guides located the stoves, rehydrated their clients, packed up, and left by noon. They moved down to base camp after picking up caches, arriving there at 0400 on July 9. (Source: Ralph Moore, Mountaineering Ranger, Denali National Park)

Analysis

The climb from 3330 to 4250 meters is too much for most groups to do in a day. Avalanches have hit parties camped in or near the basin in the past. A safer alternative is to camp in the bergschrund area below Windy Corner (which was completely filled in this year) or further west in the basin near where the icefall begins to drop down to the 3330-meter level. A big slide could completely sweep across this basin, so camping in the bergschrund or carving out a platform along the slope below Windy Corner is the best bet. (Source: Ralph Moore, Mountaineering Ranger, Denali National Park)

CLIMBING ALONE, EXCEEDING ABILITIES Alaska, Mount McKinley

Brian Hoover (26) registered with the Talkeetna Ranger Station on June 17,1987, to solo climb both the southeast ridge of Mount Foraker and the Cassin Ridge on Mount McKinley. Mountaineering Rangers Scott Gill and Bob Seibert attempted to convince Hoover to try the standard West Buttress route since Hoover had limited mountaineering experience for the other more difficult routes. In addition, during the winter and spring of 1987, Hoover corresponded with Seibert about his climbing plans. Seibert attempted to dissuade Hoover. Clearly warned of the hazards involved in solo travel on large Alaska Range glaciers and of the difficult nature of the Cassin Ridge, Hoover insisted on continuing with his planned itinerary. He flew over into Kahiltna base camp with 30 days of food. There, he had a discussion with climbing guide Jon Waterman, who convinced Hoover to try the West Buttress of Mount McKinley and possibly the Cassin Ridge afterwards.

He climbed the West Buttress, reaching the summit on June 30 via the upper West Rib route. His primary intention was to make an ascent of the Cassin Ridge after this initial ascent of the mountain. On July 7 he departed up the Northeast Fork of the Kahiltna Glacier (the approach to the Cassin Ridge) with about eight days of food. Hoover's registered due out date with the Park Service was July 20. Hoover hadn't

returned to Kahiltna base camp by the 20th, so his pilot, Doug Geeting, began the first search efforts on the 21st. He flew the approach, Cassin Ridge and West Buttress making no sightings. The park service became involved after this flight with extensive helicopter and fixed-wing flying on the 24th, 25th and 26th. A single set of tracks was observed leading up into the cirque west of the West Rib and ending in avalanche debris. Continued searching in the area found no sign of Hoover. Search efforts were concluded late on the 26th. Hoover is presumed dead. (Source: Roger Robinson, Mountaineering Ranger, Denali National Park)

Analysis

In Hoover's correspondence with Ranger Seibert, he spoke of the Cassin Ridge as being the next logical step in the progression of his climbing career where the "difficulty in my climbs is quite evident as each successive climb has increased in difficulty and height." Hoover's climbing background did not reflect climbs with the technical difficulty on snow, ice, or rock which he would have encountered either on the Cassin or in the cirque where searchers followed tracks that were believed to be Hoover's. In Hoover's last contact with another climbing party, he expressed concern for his own safety in the heavily crevassed icefall in the upper reaches of the Northeast Fork, on the approach to the Cassin. The tracks believed to be Hoover's traveled up the Northeast Fork to near the base of the icefall, then turned into a cirque to the north. No known climbing routes begin from the head of this cirque. It is believed Hoover saw the severely crevassed icefall, decided it was too hazardous for travel, and looked for alternatives, probably venturing into the cirque. No one will ever know what he did after this, and considering the danger of icefall, avalanche, or crevasse, one can only speculate on his demise. (Source: Roger Robinson, Mountaineering Ranger, Denali National Park)

FALL ON ROCK, STRANDED, EXCEEDING ABILITIES, INADEQUATE EQUIPMENT

Arizona, Camelback Mountain

At 1240 on January 24, 1987, the Phoenix Fire Department was notified that a male (18) had fallen about 60 meters to his death from a route known as Suicide Direct (5.8) on Camelback Mountain in Echo Canyon Park in Phoenix. His companion (19) was stranded about that high off the ground.

Camelback Mountain, within the city limits, is about 500 meters tall and consists mostly of rotten brecia and some granite. The first pitch of the climb goes 30 meters Class 4 to a large ledge, the second pitch continuing 40 meters at 5.8 with protection being five bolts placed by the first ascent party (including "eye" bolts—some since removed). The climb gains access to an upper portion of the mountain known as August Canyon.

The two had attempted the climb and were able to make it about 60 meters to a bolt, where there is a slightly overhanging crux move. The boy following slipped and fell. The stranded survivor had grabbed an old sling attached to the bolt there and hung on. Phoenix Fire Department called for CAMRA via the sheriff's department and team members were flown by helicopter to just above the victim, where fire rscuers had set up. By 1440 the victim was on the ground by way of an "uninjured