sickness as well as hypothermia. Our rescue time is also greatly hindered by the terrain.

In the Carroll Robinson incident, however, the accident occurred in an area in which we had just trained the week before. Arrival time and evacuation were relatively fast compared to other areas which take a minimum travel time of one hour.

The only mistake in this case was a disregard for the conditions. The party was on a south facing route on an extremely warm afternoon, with temperatures in the 45° to 50° range. (Sources: Bill Whitt, Lieutenant, and Nancy Chiltar, Secretary, Ouray Mountain Rescue)

CORNICE COLLAPSE, POOR POSITION

Colorado, San Juans, Engineer Mountain

On April 2, David Ganley (32), Fred Hutt (24), and Mike Seeberg (30) left Coal Bank Pass parking lot at 0700 on snowshoes to climb Engineer Mountain via the North Ridge. They left the snowshoes at the base of the ridge and proceeded to the summit wearing crampons. They were accompanied by a dog.

David Ganley was first to summit and was sitting on the cornice peeling an orange. Fred Hutt and Mike Seeberg were close behind. Fred also sat down, and Mike said something like, "That's not a good place to sit," as the cornice collapsed and the two men (and the dog) dropped off the north face. The cornice break appeared to be no larger than ten feet across.

Seeberg descended to the toe of avalanche debris, and determined that Ganley was dead and Hutt was in critical condition. (The dog was visible and mobile, but with a hip/ leg injury.) Seeberg covered the injured victim with a parka and left to get help. Upon returning, Seeberg and flight nurse Leo Lloyd were lifted to a landing zone about a quarter mile from the scene, stabilized (oxygen administered) and packaged on Sked. They began dragging the victim out, and were assisted by Hogan and Bachman, who came in from the landing zone after being dropped by Air Care. The evacuation took about 45 minutes. The team was met by New Air Jet Ranger at the landing zone and the victim was loaded and lifted around 1715. The victim was delivered to Air Care at the staging area and transported to Mercy Hospital in Durango. New Air returned to drop two SJSAR personnel at the scene. Lloyd, Hogan and Bachman walked back to join them and the fatal victim was packaged. New Air returned and touched down under power, while the body was loaded and secured on the ship. New Air flew to the landing zone where the body was better secured and transported to the coroner at the staging area. The five personnel walked back to the landing zone with the dog and the party's gear and were lifted off, in turn, to the staging area.

Analysis

The actions of the witness, Mike Seeberg, contributed immeasurably to Fred Hutt's survival. Seeberg, seeing the location of the victims on the snowfield below the north face, rapidly retreated back down the ascent route to a couloir which exited on the snowfield several hundred yards to the south. Seeberg covered Ganley, and determined he had sustained obvious fatal head injuries. He performed effective first aid on Hutt's head injury, stabilized his position, wrapped him in a bivy bag along with spare clothing and raced to where their snowshoes were stashed at the bottom of the ridge. He then ran down the snow-covered terrain to where their car was parked and drove to a ski lodge at the base of the pass where he phoned the authorities.

The Air Care Helicopter from Durango was in the air on a training mission and was diverted to the wide highway in front of the lodge where it was met by the victim. Very little time was spent on the ground and Seeberg and Leo Lloyd, who is also a strong and experienced mountaineer, were lifted into the vicinity of the site and raced over snow to the victims. Hutt was then stabilized, given oxygen and packaged for the drag out to a suitable landing zone, where he was evacuated by a second helicopter to the waiting Air Care ship below, and taken to the Durango Hospital 27 miles to the south. Hutt's core temperature upon arrival at the Emergency Room was 86° F. (I believe he has made a full recovery.)

Were it not for Seeberg's decisive actions—reaching the scene, stabilizing the victim, racing to the parking lot and to a phone and then joining the initial rescue party to pinpoint the location and helping the flight nurse treat, package and drag out to the

landing zone—Hutt would surely have died. Minutes made the difference.

Each victim suffered severe trauma, but little other impact injury after a fall of slightly over 1,000 feet, much of that nearly vertical. (The dog was virtually uninjured.) I theorize that the head injuries occurred early in the fall, but that enough snow was entrained in the descent to act as a cushioning envelope around the victims. The slope below the face upon which the avalanche ran out was probably about 45° which helped decelerate the fall velocity and minimized chances of further injury. Hutt remembers nothing beyond the cornice collapse and the first few feet of the fall. (Source: Don Bachman, Avalanche Forecaster—Colorado Avalanche Information Center, Silverton Office)

RAPPEL ERROR—ROPES UNEVEN

Colorado, Eldorado Canyon State Park, Hand Crack

On June 11, a climber (29) rappelled off the end of one-half of his rope and fell 30 feet. He indicated that his rappel rope was not doubled equally. (Source: Tim Metzger, Park Manager, Eldorado Canyon State Park)

FALL ON ROCK, FATIGUE, LATE START

Colorado, Rocky Mountain National Park, Hallett Peak

On July 15, at 1030, Robert Gould (53) and Kenneth Brenneman (55) left Bear Lake trailhead to do an ascent of the Northcutt-Carter Route on Hallett Peak. Upon arrival at the base of the North Face, they realized that their start was too late. So at noon, they began to climb the Hallett Chimney (III 5.6, A2) because they thought that this would be a fast and easy route. The chimney was wet and had patches of snow in parts, causing the climbers to move slowly and resort to aid at one point. At 1845, about 300 feet from the top of the route, Gould took a 35 foot fall on wet and muddy rock, becoming unconscious and unresponsive. Brenneman lowered Gould to the side of a snow field, tied off Gould at two points on his harness, placed all extra clothing on Gould, and rappelled ten 70-foot rope lengths to the base of the face. He then reported the accident to Rocky Mountain National Park SAR team. The rescue effort, which was initiated at 2230 upon Brenneman's report, took until 1245 on the following day. Gould was wearing a helmet, and this probably contributed to his survival of the head injuries. The intensive care unit at St. Anthony's Central Hospital in Denver, CO, said that Gould did not sustain any fractures from the accident but that he may take six months to a year to recover from the neurological injuries. He was able to recognize his wife and daughter within three days after the accident.