

put his weight on it. (2) No locking carabiner was used (none was used on the rappel left intact). The system failed when a carabiner opened from rope movement. (3) It is possible that in placing the webbing around the tree the victim wrapped it several times but did not connect the end loops together with the carabiner. He may have only clipped the carabiner through the wraps around the tree, thus leaving the sling open to be pulled off the tree. With the sling wrapped several times around the tree, friction held the rope for the others who were lighter than the victim. The sling's friction could not support his weight as it did for the others and it unwrapped when he placed his full weight on it.

It is debatable whether or not a helmet could have saved Audley's life, but people have survived falls of that height before because of this precaution.

Tying the sling around the tree with proper knots, tying a second sling as a backup and tying the rope directly into the two slings would have greatly improved the safety of the system. As the rappel was going to be used over and over, it would have also been wise to tie into another anchor. If non-locking carabiners are used then two carabiners should be used, and their gates opposed in order to prevent the rope from slipping out. (Source: Dr. James Patrick Mace)

*(Editor's Note: It is an accepted and common practice to belay all rappels—especially in group exercises of this type. Even leaders and guides are belayed unless there is an emergency, or the guide is the last one down, as would occur in descending a mountain.)*

## **FALLS ON ROCK, ETC.**

### **Wisconsin, Devil's Lake State Park**

Three reports of climbing accidents—and several of hikers/ walkers who got into climbing situations—were sent in for 1990. One fatality occurred when a 62 year old college professor fell about 38 meters as a result of a large piece of the rock on which he was climbing breaking free. Another serious injury occurred to an apparent 20 year old neophyte who “lost control” of a rappel he was doing and fell a few meters, landing on a rock. (Source: Devil's Lake State Park—Visitor Accident Reports)

## **FALL ON ROCK, CLIMBING UNROPED, INEXPERIENCE**

### **Wyoming, Grand Teton**

About 2400 on June 26, Stephen Stenger and Arthur Leech (34) left the Lupine Meadows trailhead intending to attempt a one day ascent of the North Ridge of the Grand Teton. They registered their climb with the Jenny Lake Ranger Station.

They encountered difficult conditions on the route. They climbed as high as the “Chockstone,” about three or four pitches above the top of the Grandstand. At this point they decided to abandon their attempted ascent and retreated back to the top of the Grandstand. From there, they descended unroped down the Grandstand toward the Teton Glacier. They encountered mixed conditions of soft snow and wet, slippery rock.

About 30 vertical meters from the top of the glacier, Stenger, who was in the lead, thought he heard a strange sound. He turned around and could not see Leech behind him any more. Stenger continued downclimbing, reaching the top of the glacier at the base of the Grandstand. He found Leech, who had fallen over a 30 meter high vertical cliff, landing on the snow of the glacier.

Stenger found his partner semi-conscious, writhing and moaning. Blood was coming from Leech's nose and mouth. He had sustained an obvious serious head injury. Leech was clothed only in polypro tops and bottoms with a nylon shell. His climbing helmet was still on his head. Stenger spent a few brief minutes with Leech, before taking off at a run to summon help. He reached the valley floor and telephoned the sheriff's office at 2228.

The evacuation plan called for using the Lama to shorthaul Leech from his point of rest to a helispot on the lower end of the glacier. He was then to be transferred into the ship and flown to Lupine Meadows. A BK-117 helicopter, with medical flight crew, would then transport him directly to the Eastern Idaho Regional Medical Center.

The Lama arrived at Lupine at 0620. At 0637, a sling load containing the shorthaul pre-rig litter was sling loaded to the accident site. At 0722, Leech was lifted from the accident site and shorthauled to the helispot on the lower portion of the glacier. He was then flown to Lupine Meadows, arriving at 0732. Leech was transferred to the BK-117 which departed for Idaho Falls at 0741.

Leech was admitted to Eastern Idaho Regional Medical Center suffering from facial fractures, a pneumothorax, a concussion and numerous wounds to the skin. Due to the intervention the night before, his rectal temperature was 37.2 C. (Source: Peter Armington, Ranger, Grand Teton National Park)

### **Analysis**

It is extraordinary that Leech survived his fall. The fact that he lay on snow seriously injured with minimal clothing for about seven hours before the first rangers arrived on scene makes his survival even more remarkable.

He wore a climbing helmet, which remained on his head after the fall. The helmet was seriously damaged and no doubt contributed to his survival.

Leech had minimal experience in serious alpine climbing. The Grandstand was covered with snow broken with wet, slippery and loose rock. It is unknown what actually caused him to fall, although he was wearing a heavy pack. His and his partner's decision not to rope the descent almost proved to be fatal. (Source: Peter Armington, Ranger, Grand Teton National Park)

## **LOSS ON CONTROL—VOLUNTARY GLISSADE, INADEQUATE EQUIPMENT**

### **Wyoming, Tetons, Lower Saddle**

On July 27, Shawn Callahan (31) lost control during a voluntary glissade on the snow below the Lower Saddle, near the base of Middle Teton. An Exum Mountain Guide, Peter Krantz, reported the accident, indicating a possible broken leg.

At 1400 Rangers Carr and Dorward were flown to just above the accident site (southwest of Garnet Canyon Caves) at an elevation of 3200 meters by Kjerstad Helicopters. Ranger Irvine was also flown to the scene from Amphitheater Lake.

The Rangers arrived at the scene shortly thereafter and determined that Mr. Callahan had a 6-8 cm long head laceration and a possible open fracture with obvious deformity of the lower right leg.

At 1620, as the Yellowstone Helicopter was arriving at Lupine Meadows, a second accident occurred at the same location. John Schall, a hiker, had slid 60 meters on snow and slammed into some rocks.