

been artfully bolted and cleaned of natural debris. Most climbers at Smith Rock do not use helmets on top roped routes. The use of helmets on less developed routes should be a mark of advanced ability and could have saved a life in this instance. The use of a belay device such as the Gri-Gri is a way to stop a fall, uncontrolled by a belayer. Brian believes that use of a Gri-Gri and a helmet might have save Bill's life. (Source: Robert Speik)

AVALANCHE, POOR POSITION

Oregon, Mount Hood, West Crater Rim

The incident took place on Sunday May 31 at 10:05 PDT at the 10,700 foot level on the West Crater Rim route. The occasion was a graduation climb for The Mazamas Basic Climbing Education program.

The party was caught in a large slab avalanche. The fracture occurred about 200 vertical feet below the westernmost summit ridge near the 10,800 foot level. One rope team of three people were caught and swept down a 45–50 degree slope—through the Hot Rocks area and then the gully between Crater Rock and Castle Crag. One person was killed by trauma during the fall, a second person received a fractured pelvis possibly due to the rope breaking between her and the person killed, and a third person on the rope team experienced a fractured ankle. The leader was also briefly caught in the avalanche and experienced an ankle and a shoulder injury.

The avalanche was classified as SS-A0-3 (medium in size relative to its potential path). The crown was 300 feet wide, two feet average depth varying from one to five feet. The slope faced southeast and the slide ran from 10,800 feet to the 9,550 foot level, or 1250 vertical feet. The slope angle at the fracture line was 40 degrees. The climbers were engulfed at the 10,700 foot level while traversing a 25–30 degree “ramp.”

Stormy, cool weather during much of the preceding week had produced one to two feet of new snow at higher elevations on Mount Hood. Clearing late Saturday allowed sun and rising freezing levels to produce surface snow melt of the upper one to two inches of wind packed snow. Radiation cooling overnight helped briefly stabilize the surface crust. At the time of the accident sun had been warming the slope for about four hours and the air and snow temperatures were rising rapidly. The freezing level was around 10,000 feet. Earlier parties summited climbing predominantly on the firm crust. However, by mid-morning climbing parties reported knee depth post-holing down to an old crust.

When the group left Timberline Lodge, they observed a hand-written sign, posted in the Forest Service Climbers' Register, stating “HIGH AVALANCHE HAZARD!” The sign had been updated Saturday, May 30 at 8 p.m. by the USFS climbing ranger, only hours before the group set out. It was unusual for such signs to be posted. In fact, this was only the second such sign in seven years.

The leader and other party members observed the sign. The wording of the sign caused questions from and confusion among various party members, some of whom who believed it might have been placed the prior week.

The party left Timberline Lodge at 12:45 a.m. and reached Silcox Hut an hour later, where the assistant leader turned back because of a preexisting injury. One of the basic school students was promoted to be assistant leader. Progress slowed, and it was over three hours later before they left the top of the Palmer ski lift just as the sun was rising. Getting to the base of the steep slope leading to the ridge overlooking Reid Glacier took a further two hours. The ascent of the slope, and a rest to let the Hood River party pass, took about two more hours. Snow conditions deteriorated on the ascent of the steep slope and steps were six to twelve inches deep. The slope that avalanched had been in the sun for about four hours at the time of the release.

On the ascent, the party passed evidence of recent slides on the west side of Crater Rock, a slope similar in aspect to their intended route. The leader probed with his ice ax and was reassured by the firm footing that the snowpack was stable. No hasty snow pits or strength tests were done. The presence of well over 100 climbers on the mountain and another party from Hood River on the West Crater Rim route also mitigated the leaders' concern about avalanche hazard.

After Crater Rock the party traveled in three roped teams. At the time of the avalanche, the leader was traveling unroped just behind the leader of the first rope. A loud crack was heard as the slab released. Within seconds the descending slab disintegrated and overwhelmed the lead rope team and the climb leader. The two trailing rope teams were not involved in the slide. The leader lost his ice ax but was able to stop before being swept down the 45–50 degree slope. The lead rope team was swept through the Hot Rocks area and down to the gully between Crater Rock and Castle Crag.

Two of the rope team were partially buried at the 9,850 foot level, with their rope still attached between them. The third member was completely buried at the 9,650 foot level, the rope having been severed. After dispatching the other rope teams to a safe area, the leader descended the slide path, finding one person buried to his waist and another mostly buried with only her head and arms above the snow. The Hood River party, with two small rope teams and two unroped members were ascending 100–150 feet ahead of the team caught in the slide when the avalanche occurred. This group was on the right (east) flank of the slide. All were just beyond the fracture, except one roped member who was knocked down and carried about 100 feet before his fall was stopped by the self-arrest action of another team member. After this mishap, this party continued to the summit unaware of the nature of the slide they had narrowly escaped.

A USFS climbing ranger, on patrol near the Hogsback, and a member of Portland Mountain Rescue organized a rescue team that descended the debris performing a quick visual and transceiver search. Because the two partly buried climbers reported transceivers were not being used, probe lines were organized. The third climber was uncovered about an hour after burial at a depth of four feet. It was apparent that death resulted from significant injuries suffered in the fall.

Evacuation of the injured victims was accomplished in about three hours by

snow cat to Timberline Lodge. Then the most seriously injured person was flown by Life Flight helicopter to Portland. The remainder of the party descended under their own power without any additional leadership.

Analysis

Leadership. The leader was one of the most experienced climb leaders serving as a volunteer for the club. He had climbed several times in Peru and the Himalaya, and had summited Aconcagua. He had climbed the West Crater Rim route about 15 times and Mount Hood over 50 times. He has been chair of the Climbing Committee. The participants were novice climbers who had completed evening education programs and several weekend outings.

The Route. The West Crater Rim route is frequently ascended. It has longer and steeper sections than the regular Hogsback route. The leader chose the West Crater Rim route about three months previously, intending to avoid the crowds and leave the Hogsback route for another party. The leader preferred this route because it gave “twice the steep climbing and was more enjoyable” than the crowded Hogsback route. Jeff Thomas’ *Oregon High Climbing Guide* states: “Be aware that this route is directly in the path of debris falling off Crater Rock, and of any avalanche coming off the slopes above Castle Crag. Huge slides are not uncommon during or right after heavy snowfall, and sometimes in the spring. If conditions are at all shaky, avoid this route.”

Transceivers. The climbing ranger commented that most other climbing parties on the mountain that day did not carry avalanche transceivers. Although several people climbing that day owned them, they were left behind. Some of these climbers later remarked that they hadn’t considered avalanches to be a problem as it was late in the season and it was such a beautiful day. But in fact, a secondary maximum in monthly Northwest avalanche fatalities occurs in May, similar to the mid-winter Northwest maximums.

Primary causes of the accident:

- The unusually high hazard avalanche conditions resulting from snow loading the previous week during a storm; an old snow crust beneath the new snow; and rapid warming at the time of the release of the avalanche.
- The presence of the party on the West Crater Rim route after the slope had been warmed and destabilized by the sun.

Secondary factors that contributed to the accident:

- The slow pace of the party that resulted in them being on the slope after warming had occurred.
- The leaders’ decision to continue on the West Crater Rim route was not questioned because there was no other leader present with sufficient experience.
- The severity of the injuries may have been increased by use of roped team travel. The unroped leader was able to avoid being carried down slope, whereas the rope ensured all three students traveled the avalanche together. The pelvic injuries may have been the result of the rope breaking.
- A confusing warning sign that failed to communicate that the avalanche danger still applied.

- The disturbance of the slope by the Hood River party and the Mazama party may have weakened the slope however the release may have been natural.
- Lack of awareness amongst many climbers on Mount Hood that day about the potential for large slab avalanches “even on nice days.”

(Source: From a report by the Incident Response Committee, consisting of John Blanck, Al Cooke, Josh Lockerby, Alan Proffitt, Dave Sauerbrey, Larry Stadler, and Ian Wade)

DISLODGED ROCK—FALL ON ROCK, ROPE SEVERED

Pennsylvania, Delaware Water Gap National Recreation Area, Mount Minsi

On the afternoon of March 26, Daniel O’Malley, Tim Feitzinger, and Jeff Sukenick decided to take advantage of the nice weather to go rock climbing on Mount Minsi. O’Malley and Feitzinger began climbing an established route. Sukenick waited for his companions at the base of the pitch. During the climb, O’Malley evidently dislodged a large rock, which knocked him off the mountain. Feitzinger was in the process of catching him when the climbing rope was severed by the falling boulder. O’Malley fell another 130 to 150 feet to the talus slope below. Sukenick heard the rock hit the ground near him. When he checked it, he came upon O’Malley. Sukenick detected shallow respirations and a soft pulse. He ran down across the talus field to a nearby highway and stood in the road until a vehicle stopped. The driver notified the county dispatch center via her cellular phone. Sukenick then returned to O’Malley and began administering CPR. Rangers and paramedics arrived on scene about 40 minutes after the fall and determined that O’Malley had died. The park’s high angle rescue team, comprised of rangers and representatives from the Pennsylvania and New Jersey forestry services and New Jersey state parks, worked themselves into a position above Feitzinger, who was stranded on the cliff, and assisted him in climbing to the top of the rock face. Team members and fire and rescue personnel from several other agencies then removed O’Malley’s body via a belayed carry-out down the talus slope in the dark. The response involved about 60 people from seven agencies. (Source: Ed Whitaker, DR, Pennsylvania District)

FALL ON ROCK, EQUIPMENT FAILURE—GRI-GRI

Texas, Barton Creek

The climbing accident concerning the failed Gri-Gri occurred on October 3rd at the cliffs along Barton Creek, near Austin. The climb is called Cyborg, and rated 5.11c; however, I was beyond the crux when I fell. My thigh slammed into a tree 20 feet below the overhang from which my fingers came loose. Blood poured from the numb area as I tried to determine whether my femur was broken or not. I was fortunate that my belayer sacrificed his right palm to slow me down and eventually break my fall. I was also lucky that the cliff overhang beyond the large horizontal ledge, which would have been much more damaging, perhaps even fatal, than the near vertical tree trunk.