FALL ON SNOW, INADEQUATE PROTECTION, INADEQUATE BELAY Oregon, Mount Hood, Castle Crags

On April 3, Doug Adair (50) and Debra Marsh (47) attempted to climb a variation on Castle Crags, a steep buttress separating the south and west sides of Mount Hood. They proceeded from Illumination Saddle up snow ramps which became progressively steeper. Doug climbed up to the first obvious notch in the crater rim to get a view, then down-climbed back to Debra. He proceeded to traverse approximately 100 feet below the crater rim towards Reid Headwall, in search of a way to reach lower-angle slopes and eventually the summit ridge. This traverse proved quite difficult and time-consuming. Doug eventually encountered a fluting of extremely soft "bottomless" snow. After working his way across, he climbed up about 30 feet and waited for Debra to cross. He could not proceed farther and maintain a solid position due to large amounts of rime and a section of rock above. Doug planted both tools and feet, and placed a picket. He found fairly solid snow, but it was shallow (his picket hit rock at first). Doug estimates the slope angle was approximately 65 degrees at the traverse.

Debra slipped a bit on her first attempt to cross the loose snow, then fell. The force of the fall pulled Doug out of his stance and his picket out of the snow. The resulting fall was a tumbling, 1,000-foot ride over several cliffs and gullies, including the Reid Glacier bergschrund, to a stopping point at the head of the Reid Glacier. The fall resulted in fractures, abrasions, and lacerations to each climber.

Analysis

Protection can be difficult to come by on the steeper climbs on Mount Hood. Rime ice and loose snow often require innovative and unorthodox techniques to get an adequate belay. Sometimes belays are simply inadequate, no matter the skill or experience the climber may have. While the climbers reported good conditions early in the climb, other experienced climbers the previous day encountered unconsolidated "sugar" under a weak crust in the immediate vicinity of the accident. Often, it *may* be safer to continue unroped to avoid pulling the entire team off in the event of a fall or simply back off the climb altogether if possible. Climbing roped with poor anchors can provide a false sense of security. In these cases, the rope may only ensure that "no man falls alone."

The "belay" did not involve pulling in rope as the follower traversed. This resulted in approximately five feet of slack in the rope, which allowed the follower to pick up speed before the belay took the force of the fall. When protection is marginal, every attempt should be made to minimize forces on that protection. A more formal belay may have been more appropriate in these challenging conditions.

The climbing party encountered very difficult traversing at the elevation they chose. It took much longer than they had expected, and the fall occurred after 1100. It is recommended to be off steep snow and ice as early as possible

to avoid any sun influenced instability, though the snow the party encountered appeared to be part of a longer-term trend in conditions.

After the fall, both climbers mistakenly thought the other had a phone in their pack. Without a phone, it was luck alone that a member of Portland Mountain Rescue happened to stop over at the saddle to check conditions on the Reid Glacier as he was skiing down from the summit. People rarely travel on the Reid late in the day, and the immobilized party could have been there for a very long time.

Though helicopters were requested and succeeded in evacuating the patients, whiteout conditions hampered air rescue attempts for a short time. Climbers encountering an accident must be aware that helicopter rescue is not always possible or appropriate. Even if a helicopter is available to assist, contingency plans should always be made. (Source: Iain Morris, Portland Mountain Rescue)

FALL ON SNOW—FAULTY USE OF CRAMPONS Oregon, Mount Jefferson

On Sunday morning, April 25, Brent McGregor (51) and Tom Herron (40) began a climb of Mount Jefferson. McGregor and his climbing partner had started their climb at 3:00 a.m. Sunday but did not reach the summit until around 5:30 p.m., as heavy, wet spring snow challenged their every step. "The snow was pretty soggy, and we had a late summit – later than we should have," he recalled. "The snow conditions slowed us way down."

The pair were ankle and sometimes knee-deep in snow on their journey. "Once you stepped onto the crust layer, you're way down to your ankles," he said. "It's very tiring, a long haul to the top. The snow was warm, and the freezing level was 11,000 feet, higher than the 10,495-foot peak.

McGregor summited the peak after fourteen hours of climbing as Herron, who was very tired, waited below. "We knew that we were going to have soft snow," he said, and as for the descent, "A lot of people say that's where you get hurt. My energy level was high. We knew we had two hours to get down the mountain that we would be able to use our headlamps to follow the (Pacific Crest Trail) out.

"We would have been fine, if I didn't slip," McGregor recounted. "I was going down maybe a 45-degree slope. The snow was really soft, and we were plunge-stepping down the mountain. (They were not roped together.)

"Thit an area where there was a sheet of ice, with two inches of fresh snow on top of it, instead of the deeper snow we were going on," he said. "The area around me, the surface snow broke loose. Everything came down and took me with it. I was face down to self-arrest...

"When I did that, it ripped through the snow," McGregor said. "I worked up a pretty fast speed for 15 to 20 feet. Then one of my crampon points hit the snow, and they caught. They say never wear crampons if you're going to glissade.