

## **Analysis**

After the accident, several climbers from other parties verified that the device was rigged properly and passed several “auto-lock tug tests.” The device itself was fully functional.

Petzl’s user manual for the Grigri states the device is designed for a 10mm to 11mm rope. In this case, the climbers were using a 9.4mm cord. The owner of the rope had used the same rope and belay device numerous times before without incident. Similarly, many climbers either disregard or are unaware of Petzl’s rope diameter recommendation and still manage to climb safely due to proper belay technique, since a Grigri will lock and hold a fall provided that the belayer keeps his or her brake hand in the correct position to arrest the fall.

A proper belay would have prevented this accident, even though the party was using a rope that is skinnier than what is recommended by Petzl. It is important to use proper belay technique, even with an auto-locking belay device. Also, if someone is learning to belay, it is a good idea to have an experienced climber hold the rope below the new belayer’s brake hand. In the event of the belay getting away from the new belayer, the other climber can lock off the rope.

Additionally, using a rope that is within the manufacturers specifications for the belay device may have prevented this accident. The belay device is designed to lock automatically. However, it is possible that even with a thicker rope, the belayer’s hand squeezing the rope above the device may have relieved just enough force from the Grigri cam that the device did not lock automatically.

Bottom line: either a proper belay, a backup/safety observer for the new belayer, or using the correct rope for the belay device would have prevented this accident. (Source: Lucas Gruenther)

## **AVALANCHE, POSSIBLE POOR POSITION CHOICE**

### **Montana, Gallatin Range, Hyalite Canyon**

On Thursday morning, December 10th, at 0700 a group of 24 (12 teams) participants lined up in the Grotto Falls parking lot for the 4th annual Ice Breaker ice climbing competition. Each team climbs as many difficult routes as possible in a day. Around 0845, competitors Guy Lacelle (54) and his partner Adam Knoff completed the ice climb The Dribbles and traversed into the gully leading up to The Climb, above The Dribbles. During this time, two other competitors were climbing The Dribbles with the same objective, although they approached it after climbing a separate set of nearby routes. At 0900, one of them triggered a small avalanche (six inches deep) that caught both him and his partner, carrying them approximately 300 feet down the gully and over a 25-foot ice step where they stopped. One of them

ended up going over this precipice headfirst while the other cascaded over the cliff on his back. Both climbers were shaken up but unharmed. They continued back up the gully.

Guy Lacelle and Adam Knoff moved into the gully that the other two were ascending after the first slide. They had no idea anyone was below them, while Lacelle and Knoff thought the party above was already on the ice much higher. Knowing the avalanche danger, the other two hugged the edges of the gully on rocks as much as possible. One wrote in an email, "We assessed the gully above and decided we could continue up and stay out of harm's way. We had not, however, considered that someone might be below us. We were already up there so we might as well go for it, we thought. We decided to at least have a look at the gully above the last crown.

"Continuing up, we skirted the right side of the gully staying mostly on the rocks. We heard no collapsing and saw no cracking, thus deciding to continue up." They reached a point where the gully narrowed and forced them away from the edge. This tapering of the gully forced him to step towards the center where he triggered the second slide.

This second avalanche broke 40 feet across and 18 inches deep on a firm bed surface. The two competitors were able to avoid being caught, but the slide picked up momentum as it moved down the gully towards Lacelle and Knoff. One of the climbers above yelled, "Avalanche!" as he looked down and saw Knoff cresting the second ice bulge.

"Worse than the sound of collapsing snow was the sound of someone below us, who turned out to be Knoff yelling to Lacelle." Unfortunately, Lacelle was in the middle of the second ice step and was unable to avoid the avalanche. He was swept about 1,000 vertical feet to his death, the last 400 feet being the steep ice cliff of Silken Falls.

Knoff descended the gully and rappelled the falls in search of Lacelle. Before descending, Knoff directed the climbers above to probe the debris uphill of the falls to confirm that Lacelle was swept over the edge. Halfway down the rappel Knoff saw Lacelle's boot sticking out of the snow at the bottom of the climb. He alerted the others of his discovery. He continued down and found Lacelle with his head down hill and fully buried except for one boot sticking out of the snow. Knoff dug him out but was unable to revive him. The other two climbers rappelled down and were on the scene within minutes. Knoff left them with the body and he descended to alert SAR about the accident.

### **Analysis**

We investigated the avalanche on Friday, December 11th. The avalanche that struck the victim consisted of pencil-hard wind slab, 46-cm thick, sitting on 5-20 cm of weak facets. Hyalite experienced cold temperatures, strong winds and light precipitation over a four-day span before the event.

The steep, narrow gullies of Hyalite Canyon were loaded with wind-blown snow and from snow cascading down its steep faces. On Thursday, December 10th, numerous human triggered avalanches were reported in Hyalite over the course of the day, most of them small pockets of wind slab triggered by other Ice Breaker climbers crossing slopes.

The advisory on December 10th read, "Today, the primary concerns are wind slabs formed by recent west and northwest winds. While these wind slabs do not appear very sensitive they are widespread and human triggered avalanches are possible. For this reason the avalanche danger is rated MODERATE."

The only thoughts on the analysis have to do with the human factor. The amount of its influence in this accident are unknown, but certainly worth considering. The main one is the fact that this was an ice climbing competition. This complicated things because it was an over-riding factor in decision-making. Would the climbers above Guy Lacelle and Adam Knoff have kept climbing after they got caught in the first avalanche had it not been a competition? Would Guy and Adam have climbed underneath another party headed toward their intended route if it was just a routine day of climbing? These are unanswerable, but for climbers in this situation in the future, certainly worth thinking about. (Source: Eric Knoff, Doug Chabot, and Mark Staples, Avalanche Specialists)

## **FALL ON ICE, NO EXPERIENCE**

### **New Hampshire, Cathedral Ledge**

In February, two inexperienced climbers in their early 20s (never climbed ice before) signed out boots, crampons, and ice tools from the demo people at the annual IMCS Mount Washington Valley Ice Festival. They bought some used ice screws and headed for Cathedral Ledge. Witnesses stated that they looked shaky at best as the leader headed up the pitch. At the third screw placement, the leader fell, leaving both tools in the ice. The second lowered him to the ground and untied him. With some leg injuries and a cut face, they headed for the hospital. Climbers reported the axes, rope, and screws were left in the ice. The demo people went to Cathedral and retrieved their gear. Boots and crampons were returned after the hospital visit, and we returned the ropes and screws to the climbers. (Source: Rick Wilcox, International Mountain Equipment)

### **Analysis**

We don't even like to count this one as a climbing accident. But it is. One important question for people who are responsible for handing out demo gear of any kind is whether they can/should refuse to lend the gear if they believe the individuals requesting it are not experienced enough. (Source: Jed Williamson)