in stokes litter and carried out of the approach gully, which is steep and bouldery. Having seven staff and four volunteers in this section was key in order to be able to pass the litter down without too much difficulty.

The rescue team arrived at the Stines Creek Picnic Area and the waiting Life Run ambulance at 1:45 p.m. Throughout, Cross remained alert and oriented and in good spirits.

Cross was transported to Cassia Regional Medical center in Burley, Idaho, where she was diagnosed with complete and comminuted fractures of her right tibia and fibula, just below knee level. She underwent successful surgery on the evening of the 21st.

Analysis

Thanks to an alert belay and her proximity to the last bolt, Dottie only fell about ten or fifteen feet. However, the second pitch of the route "One For Matt" is 5.8 on less than vertical, very featured rock, which is typical of routes on Castle Rock. Falling on this terrain is like falling with crampons on. Your feet will catch and a lower leg injury will result. Often times in a longer fall, the climber will have a combination of a lower leg injury and an injury to the back of the head as they fall past the tripping point. This illustrates that moderate to easy ground can be more dangerous than harder, steeper terrain.

"One For Matt" was at the time a brand-spanking new route. Dottie and Duane were making the third ascent. There is a fair chance that the foothold that broke had never been stood upon or never weighted so hard. (Source: Brad Schilling, Climbing Ranger, City of Rocks National Reserve)

FALL ON ROCK, INADEQUATE BELAY — ROPE TOO SKINNY FOR BELAY DEVICE (GRIGRI)

Kentucky, Red River Gorge, Torrent Falls

On April 11, Marie Abernathey (early 20s) was leading Dream of a Bee (5.8), a well-bolted sport climb at the Torrent Falls area of Red River Gorge. Abernathey was being belayed by Katherine West (early 20s), a new climber who was using a Petzl Grigri. Above the last bolt and below the anchors, Abernathey fell. West, in an attempt to arrest the fall, squeezed the rope tightly with her non-brake hand (which was on the rope above the belay device). The device failed to lock, which caused Abernathey to fall 60 feet to the ground at near-freefall speed. Just above the ground, Abernathey impacted a three-foot-high boulder, injuring her back. She was stabilized and a climber with medical training treated her with pain medication. After about 30 minutes, the climbers in her party helped Abernathey walk to a cabin about 100 yards down the trail from the crag. West sustained burns to her left hand from attempting to halt the 60-foot fall. Neither required a hospital visit, and both were able to enjoy the Red River Gorge Reunion festivities that night.

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 where 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