Fall On Rock – Lead Rope Unclipped From Protection

Colorado, Eldorado Canyon State Park, Lower Peanuts Wall

Shortly after noon on Saturday, August 9, Wayne Crill (46 at the time) was attempting to lead a new route on the left side of Lower Peanuts Wall. He was belayed by Greg Miller. Crill and Miller had previously worked the route on top-rope, figuring out the moves and assessing the number and quality of protection opportunities. According to Miller, they knew a few points of protection were of marginal quality, but they felt that even if those points failed in a fall, the sounder protection placements would prevent a ground fall.

During his lead attempt, Crill had placed seven pieces of protection over about the first 30 feet of the climb. The line shifted slightly left to right a few times, but at about 30 feet up, Crill was more or less straight above the start of the climb. From that point, he climbed diagonally up and right about 10 feet and placed another piece. He clipped a 21-inch, 8mm Dyneema sling into this piece. The sling likely had been triplelooped on his rack, so he would have clipped it into the piece of protection, unclipped the bottom carabiner, extended the sling, and, presumably, clipped the lead rope into the bottom carabiner. The top carabiner on the sling had a wire gate, and most likely the lower carabiner also had a wire gate.

From here, Crill climbed diagonally up and right about another 10 feet, placed another piece of protection, and used a similarly equipped 21-inch sling in a similar manner. (Miller has stated that Crill may also have placed another point of protection between these two pieces.) Now Crill climbed straight up, about another 10 feet, and placed a slider nut and a stopper equipped with a "screamer" for a quickdraw.

According to Miller, Crill was almost to an obvious undercling, just below the roof band that diagonals up and right across the wall, when he fell. The stopper pulled, but not before a few of the bar tacks on the screamer ripped (as they are designed to do to reduce the force of a fall.) The slider nut also pulled. The fifth piece of protection that Crill had placed was pulled out by the action of the rope. And, if there had been a placement between Crill’s eighth and ninth pieces, as Miller suggests, it also pulled.

As improbable as it sounds, what also seems to have happened is that the force of the fall, likely exacerbated by vibration and slack created by the gear that failed, caused the rope-end carabiners on both of Crills’ eighth and ninth pieces (along the diagonal traverse) to unclip from their respective slings. That left the high point of the rope as the seventh piece of protection that Crill had placed. This piece was too low to arrest the fall, and he fell all the way to the ground.

Responding to screams for help and telephone calls, park rangers, Rocky Mountain Rescue personnel, a sheriff’s deputy, and ambulance personnel arrived on scene. Crill was unconscious and bleeding from the head. Rescuers stabilized him, loaded him into a litter, and lowered him down the talus slope below Lower Peanuts Wall to the Fowler Trail. The litter was placed on a wheel, and the victim was transported to an ambulance waiting at the trailhead. Soon afterward, Crill was loaded into a helicopter and transported to a hospital.

Analysis

Responders' initial on-scene efforts were directed to stabilizing and packaging Crill for evacuation. After the rescue, the stopper (with screamer attached) and slider nut, and two free carabiners (both with wire gates), were found at the scene. The rope ran up through the first seven protection placements and back down to the ground. (The fifth placement had pulled from the rock but was held up by the fourth protection placement.) Above the seventh placement and the high point of the rope, 21-inch slings were clipped to the eighth and ninth pieces, with no carabiners at the bottom of each of the slings.

Though not at all common, there are two ways this can occur. Carabiner gates can flutter open when a carabiner violently bangs against the rock, or simply by vibrations created when arresting a fall. This may be more likely to cause carabiner failure, rather than unclipping, because a closed gate is critical to the full strength of the carabiner. It is also possible with an open loop of sling, where the rope-end carabiner doesn’t have a mechanism to secure it in place (such as a sewn loop or clove hitch), for the sling to twist and the carabiner to orient itself in such a way that the gate slams against a side of the sling, opens up, and the carabiner unclips from the sling. In this particular case, the very rare event of a carabiner unclipping from a sling happened not once but twice.

Editor's note: As Muehlhauser suggests in his report, fixing the rope-end carabiner to the sling with a clove hitch or other method might prevent it from twisting around a sling and unclipping. However, knots weaken thin Dyneema slings. The surest way to prevent a carabiner gate from vibrating or banging open—or from unclipping itself against a sling— is to use a locking carabiner. For crucial placements, this can provide an extra measure of security. In Crill's case, where two separate placements came unclipped, extremely bad luck played a major role. He was wearing a helmet, which may have mitigated his injuries. Nonetheless, he suffered a traumatic brain injury. Ten months after the accident, his recovery continued to progress.)

Images

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