

Park Service comments: It may seem obvious now, but if you decide to rappel the descending portion of the Tyrolean lines, de-rig your brake before the ropes below you become tight. Second, if you do need to escape from this type of brake while the rope is under tension, remember that you can take your weight off the carabiner, but not off the rope, as the tension continues to trap the carabiner against the brake, making it extremely difficult to unclip, as Charles found out. However, the link between the carabiner and the harness is *not* under tension, so unclipping from the belay loop on your harness is a five-second, one-handed manoeuvre. But Charles had rigged the carabiner around his leg loops, his waist belt, and a back-up webbing swami, thus making a complicated jumble of stuff to manipulate with numb fingers while hanging there in the dark. By the time he got his headlamp, he was too tired to deal with it.

Regardless of the technique you choose for crossing, you can eliminate the need to pass the knot by just positioning it at the anchor you start from, and have the first person across adjust the slack in both lines as needed. One final comment: This report is not an instruction text on how to rig or cross a horizontal line. (Source: Charles Zilm and John Dill, NPS Ranger, Yosemite National Park)

FALL ON ROCK, INADEQUATE ANCHOR SYSTEM

California, Yosemite Valley, Washington Column

On December 3, Andrew Morrison died when he fell several hundred feet from the South Face of Washington Column (Grade V, 11 pitches, 5.10a A2) in Yosemite Valley. On December 1, they climbed the three pitches to Dinner Ledge and slept on the ledge at the top of pitch 1. They admitted to being awed by the exposure. The climb starts from 3rd class ledges, yielding a few hundred feet of exposure on the first pitch—but they were all enthusiastic, enjoying the climb, and they felt the whole team was climbing competently and safely. Andy had done well leading the second pitch.

On December 2, they hauled their gear to Dinner Ledge, where they planned to bivvy until they finished the route. They had lots of trouble with the haulbags snagging on the way up, and they had worked hard getting them free. Pitch 4, the Kor Roof, was Andy's lead, but he was tired from dealing with the bags, so Matt led and Nick followed. It was dark by the time they finished the pitch.

On the third, Andy started up the ropes to lead pitch 5, but had to go to the bathroom, so he returned to Dinner Ledge after jugging halfway. He was still feeling tired, so Matt took the lead with Nick belaying. Andy started up again but then changed his mind. He also mentioned that he had found his ascenders inefficient the first time up, so he had switched to Prusiks.

After a discussion with Matt, Andy decided he would take two ropes and go down to the Valley to get Craig, another member of their group who was hoping to join them. Andy said he planned to rappel pitch 3, pull his rappel ropes, fix one rope as he descended pitch 2, and fix the other on pitch 1. This way, he and Craig would have to re-lead only pitch 3 to rejoin the team. Andy started down from Dinner Ledge and was soon out of sight, while Matt and Nick began pitch 5.

About an hour later Andy called up, "My ropes are stuck." Nick (belaying Matt) replied, "Do you have both ends of the ropes?" Andy: "Yes." Nick: "Can you tie a Prusik around both ropes, then climb up and free them?" Andy: "Oh, yeah," with an apologetic tone, as if realizing he should have thought of that on his own. Nick reinforced the point about the Prusik hitch needing to be around both ropes, and asked for confirmation that Andy understood. Andy seemed frustrated, but not unusually so for someone dealing with the hassles of a wall climb.

Perhaps 45-60 minutes later (approximately 1330), Matt and Nick heard the sound of rocks falling. Matt looked down and saw Andy fall into view, accompanied by one or two watermelon-size rocks. Matt knew immediately that the fall would be fatal. He was able to alert hikers on the ground, and by the time he and Nick had rappelled to Dinner Ledge they could see emergency vehicles on the bicycle path below. Too upset to continue down, they stopped for the night and descended in the morning.

Analysis

Andrew (28), Mathew Ryan (30) and Nicholas Thain (28) were on their first trip to the park, under the sponsorship of the Australian Army Alpine Association. They were competent free climbers with several years experience, but had climbed only a few aid pitches and no big walls. Hoping to improve their wall skills, they had selected the South Face as a good "starter" route. They were well equipped with gear and intended to take several relaxed days, bivouacking on the wall.

The NPS team found that both of Andy's ropes had fallen with him—a 50-meter dynamic and a 46-meter static. The ropes were tied together as if for a rappel. An overhand knot was tied in the free end of the 50-meter rope, similar to a "stopper" knot intended to prevent a rappeller from going off the end of the rope. The free end of the 46-meter rope was unknotted. Andy may have untied a stopper knot in that rope to prevent it from jamming in the rappel anchor when he pulled his ropes down after a rappel.

The accident probably occurred on pitch 3, for the following reasons: (1) The ropes appear to have been rigged for a doubled-rope rappel, and pitch 3 is the only one Andy intended to descend that way. (2) A crack near the top of pitch 3 is well known among locals for jamming rappel ropes, which pitch 2 does not do. (3) It is unlikely that he would have left his ascenders and etriers at the anchor as he descended pitch 2.

Andy's rigging suggests that he was trying to put full body-weight on the 50-meter rope to pull the jammed rope free. Given his position on the rope and the length of pitch 3, he was probably at or near the anchor at the bottom of the pitch, about where he would be if he were pulling his ropes.

Did the falling rocks somehow cause his fall? There is no direct evidence of this, but there were clear signs that Andy had struck the ledge at the top of pitch 1 on his way to the ground, so his impact may have dislodged the rocks there.

There is circumstantial evidence that Andy's state of mind may have set him up for an accident. First, he seemed to be in an unenthusiastic mood that day, perhaps feeling ill. Second, although he was an experienced free climber, he

had little aid experience and had complained of being inefficient with his big wall ascenders. Third, he had been struggling with his rappel ropes for an hour or two, clearly annoyed by the situation. Each problem, by itself, may have been frustrating but was not necessarily dangerous per se; however, one irritation on top of another may have ultimately led to hasty decisions and shortcuts with safety. Of course we cannot know Andy's state of mind; the possibility of contributing mental factors is offered here for other climbers to watch for in themselves.

In summary, the most likely scenario places Andy at or near the bottom of the first rappel from Dinner Ledge, trying to free his jammed rappel ropes by pulling hard on one rope. When the rope suddenly came loose, he lost his balance and fell, pulling the other rope through the anchor above and taking both ropes with him.

While we do not know exactly what Andy was doing at the time, or what caused his fall, we can be fairly certain that for whatever reason, either he had no anchor to the cliff at that moment or he had fashioned an inadequate one.

Several observations have been left out of this analysis for lack of space. Note that none of the key skills involved in this accident are unique to big-wall climbs. Ascending and freeing jammed rappel ropes and maintaining a secure tie-in are concepts important to free climbing as well. (Source: John Dill, NPS Ranger, Yosemite National Park)

VARIOUS FALLS ON ROCK, VARIOUS CAUSES

California, Joshua Tree National Park

There were five incident reports from this park that qualified for the data. They all were falls, three of them resulting in injuries because either protection pulled or there was inadequate protection. One fall resulted on a lowering—when the belay rope whistled through the stitch-plate belay device. Another occurred when a husband was rappelling from the same (doubled) rope his wife was climbing on. She had no belay when she fell.

There were, as usual, hikers getting into technical terrain and falling. Two of these fell 50 feet. (Source: Incident Reports submitted by Joshua Tree National Park)

WEATHER—HIGH WINDS, FALL ON TO ROCKS

Colorado, Rocky Mountain National Park, Longs Peak

On February 7, Craig Dreher (30) and Gene Williamson (30) decided to abort their winter attempt of the Keyhole Route due to high winds. As they were retreating from the Boulder Field, a gust of westerly wind estimated at 150 mph knocked over Williamson and picked up Dreher (who weighs 170 pounds) free of the ground. Dreher was tossed into a pile of rocks, impacting on his right ankle, resulting in a fracture of the fibula.

Analysis

Although this accident occurred on non-technical terrain, Dreher and Williamson requested that this be brought to the readers' attention as an example of the high wind hazard prevalent on winter climbs of Longs Peak. Winds