



AAC Publications

Rockfall – Overcrowding, Inexperience, Anchor Failure

California, Yosemite National Park, Cathedral Peak

On Friday, August 25, five climbers left the Bay Area with the goal of climbing Cathedral Peak. The team consisted of two experienced climbers (Ben and Nate) and three with little to no experience outside of the gym (Megan, Erin, and Andrew). All climbers were in their mid-20s. Ben and Nate each had seven to ten years of climbing experience. Furthermore, they had gone to a self-rescue course together a year or so prior, and both had climbed Cathedral Peak numerous times.

On Saturday, August 26, the group arrived at the base of Cathedral Peak around 11:30 a.m. The southeast buttress is a very popular 5.6 climb, and this day was extremely busy, with an estimated 30–40 people on the route and at the base, including approximately 10 parties on variations of the first two pitches alone.

Due to the number of people on the “standard” start (route “A” in the popular Supertopo guidebook), the team decided to move right and start up what they believed to be route C. (During the investigation, it turned out they were closer to route B.) At around 12:45, they began climbing in two separate teams: Ben, Erin, and Megan, climbing with two ropes, and Nate and Andrew, climbing with one rope. Ben started leading on the left (staying fairly true to the “B route”), while Nate headed up a ways to the right. Both leaders soon got to the first ledge system, set up anchors, and began bringing up their partners.

Ben started belaying Erin first, and once she was a ways up the pitch, he began bringing Megan up on the other rope. Nate had already brought Andrew up to the first belay ledge and was getting ready to begin leading pitch two.

At about 1:15 p.m., Megan reached a point about 30 feet off of the ground, just as Erin was arriving at the belay ledge. After manteling onto the left side of the ledge, Erin put her foot on what appeared to be a solid rock and began to stand up. She felt the rock below her give way, and it fell toward Megan. Everyone who saw this began screaming, “ROCK! ROCK! ROCK!” to get Megan’s attention. Megan saw the microwave-size block coming at her and moved to the right to get out of the way, but during its fall the rock hit something and changed its trajectory, causing it to hit Megan directly on the head. The impact knocked Megan unconscious.

As soon as the accident happened, Ben decided it was of the utmost importance to gain access to Megan and try to get her to the ground. The best course of action seemed to be to get Erin the rest of way to the belay, leave her attached to the anchor through his ATC Guide device, and fix the rest of her rope to the ground. This would allow him to rappel to Megan. Since his ATC was being used to keep Erin (and Megan) attached to the wall, he rappelled using a Munter hitch. Ben stated that he mistied the knot a number of times due to the frantic nature of the situation.

Nate also prepared to rappel. Leaving Andrew attached to the anchor with a personal anchor system (PAS), Nate doubled over his 60-meter rope and began rappelling toward Megan using an extended ATC with a prusik autoblock. To reach her, Nate had to pendulum hard left. Neither he nor the rest of the team noticed that after swinging over to a different area of the wall, his rope no longer reached the ground, due to the sharp elevation change along the base of the cliff. This will be important later in the narrative.

At the time of the accident, another team consisting of Patrick (male, 40s) and his partner had reached the base of the climb. After witnessing the event, Patrick asked his partner to belay him up to Megan. When he arrived at the scene, Patrick requested that Nate put in some gear for him. Nate placed a number 1 and number 2 Camalot, and Patrick clipped in to this temporary anchor with a PAS.

Meanwhile, Jenny, an emergency room doctor who also had started up the climb, downclimbed to the ground so she could help. It was decided that the best way for Jenny to gain access to Megan was to tie in short on Patrick's rope. He then belayed Jenny off his harness with an ATC. Upon arriving at Megan, Jenny told the other climbers there (Ben, Nate, and Patrick) that she would focus solely on patient care while they figured out the best way to get Megan to the ground. Jenny's partner, Terry, had already begun running toward the road to initiate a rescue.

With everyone on scene, the initial plan was to have Nate rappel with Megan using a "deadman rappel" (or rescue spider) on Nate's rope. The team began transferring Megan to Nate, clipping her PAS to a point on Nate's PAS, so Nate could rappel without having all of Megan's weight on his harness. The team also created a chest harness out of a shoulder sling to help keep Megan upright. Once they had checked to make sure she was securely attached, Patrick cut the taut rope leading from Megan's harness to Ben's original anchor above, thus committing Megan to Nate.

As Nate got ready, he suddenly realized that his rappel ropes did not reach the ground. Frustrated by this chain of events, the team realized they needed a new plan. Using a sling, Nate clipped himself directly into the two pieces he had placed for Patrick.

Since Jenny was still belayed on Patrick's ATC, the team's new plan was for Patrick to lower Jenny to the ground with Megan attached to her. To do this, the team clipped Megan directly to Jenny's harness using a Dyneema runner girth-hitched through Megan's harness and attached to Jenny with two non-locking biners. In order to slowly transfer the load onto Jenny, Nate began rappelling a bit with Megan still attached to him.

During this process (about a six-inch lower), the two-piece "anchor," which previously had been unweighted, came under tension. The block where the anchor was built then shifted, and both cams pulled out. Fortunately, due to the interconnected nature of the scene, the anchor failure was not catastrophic. The whole team dropped about a foot, and then all five people were held by Nate's rappel rope.

After the drop, the team continued with the plan of lowering Jenny and Megan. Patrick climbed above the team and built a solid anchor with four cams. Once this was in place, Patrick redirected his rope through the new anchor and lowered the two women. Ben continued rappelling on his rope below Megan, supporting her during the lower. All told, the process of getting Megan to the ground after the rockfall took around 30 to 45 minutes.

At this point, it was around 2 p.m. Terry, Jenny's partner, had made contact with rangers in Tuolumne and initiated a rescue. A ground team and helicopter both were dispatched to the scene. At 3:17 pm, as the helicopter was doing a recon over the accident site, it was noticed that CPR on the patient was beginning. The ground team arrived on scene at approximately this time.

At 3:53 pm, after regaining pulses in the patient, she was short-hauled to a nearby landing zone, where she was then loaded into the helicopter and flown to Crane Flat. She was transferred to a medical helicopter and flown to Modesto Memorial Hospital. Unfortunately, she passed away in the emergency room.

ANALYSIS

While a climb like Cathedral Peak is not particularly difficult, move for move, it is every bit as serious

as any other alpine rock climb. Loose rock abounds in the High Sierra, and it's important to test holds and be aware of your surroundings and climbers above and below you at all times.

While it's hard to know if—or to what extent—crowding on the route contributed to this accident, crowds are a common and dangerous problem on trade routes like Cathedral Peak. In addition to increased rockfall hazard, people's risk analysis, route choices, and the length of time on route can all be affected by having too many people in a small area. If there are too many people, consider another objective or waiting for another day.

The leaders of the party had knowledge of self-rescue systems (which helped tremendously), but they also struggled a bit when it came time to execute them. The amount of chaos and adrenaline in a scenario like this is tremendous. Without knowledge and practice, it will be extremely difficult to get things done efficiently. (In this case, the most efficient way to lower the patient likely would have been for Ben to anchor Erin at the belay ledge, release the autoblocked belay device—with a backup—and lower Megan directly to the ground. But the two leaders in the group were focused on reaching their injured friend as quickly as possible.

By acting hastily, the results can be catastrophic (such as the blown anchor) or simply add time and complexity to the rescue. Take a deep breath and analyze your surroundings. Ask yourself, "What is necessary? Who is necessary? What is our goal?" Remember: "Slow is smooth, smooth is fast."
(Source: Yosemite National Park Climbing Rangers.)

Images



The base of Cathedral Peak on the day of the accident. At least six parties are visible on these busy routes.

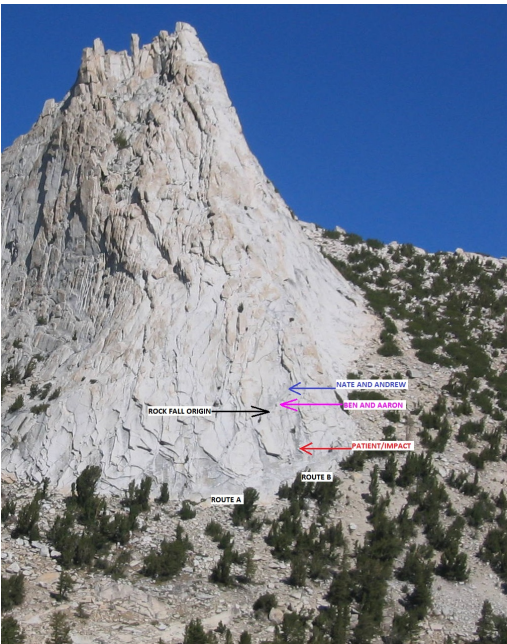


Diagram of the accident scene near the base of Cathedral Peak.



Origin of the rockfall from the belay ledge is circled. Other loose blocks can be seen on the ledge.

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