

having a lot of rope left [when belaying on Pole Position], which should have been a clue to me, to all of us.”

Adam said, “When I looked at the scene later, it was obvious that we had walked to a lower position [below the Revival belay point], but prior to the accident, we were having a great time and simply didn’t notice. When we said, ‘just move [the rope] over,’ I can’t remember looking or thinking that Jason had moved up. Afterward, when I looked up at the cliff...it was quite obvious that there is an elevation gain in the routes on the right.”

For a top-rope, 15 feet of added pitch-length needs 30 feet more of rope. Check the math: Does your rope have a mid-mark? Is it easy to see? Is the mid-mark off the ground when the climber tops out?

Despite knowing the rope was short on Lieback and Pole Position, they didn’t seem to keep the conversation going. Jason called down to ask about the rope-length for Revival but, perhaps hampered by wind and traffic noise, he did not make sure that Adam knew why the anchor was higher. Colby said, “I knew that [Revival] was longer but I didn’t think it was too long for the rope. And I don’t think anyone talked about it.”

Adam said, “In retrospect, we all have to be willing to communicate and check each other. Little things like, ‘Hey Colby, I’m watching Jason right now, can you keep an eye on the rope end for me?’”

Jason added, “Never take anything for granted. You can’t assume that everyone’s doing his job. I’ll climb with people who will check my knots, etc., and sometimes I’ll think, ‘That’s kind of silly, I’ve done it so many times’, but no, you should check and double-check.”

The topo effect? Adam: “I don’t want to blame it on this, because we should have seen the problem ourselves but I think that when we saw ‘top-rope’ [in the guide], our minds just shifted to, ‘OK, the guide says do top-rope, we’ll do top-rope, and we’ll be fine.’”

All three climbers are very strict about knotting or tying off rappel and lead lines, but there was never a conscious effort to knot the top-rope at Church Bowl. It just happened to be packaged that way. One reason for an end-knot even when the rope clearly reaches the ground is to maintain good habits so you don’t forget or get lazy when a knot really counts—or when you’re having too much fun to notice the clues.

Despite his major mistake with the belay, Adam’s fast response in braking Jason’s fall may have averted a fatality. (Source: Edited slightly from a report by John Dill, NPS Ranger, Yosemite National Park)

WEATHER—FAILURE TO TURN BACK, INADEQUATE CLOTHING

California, Yosemite National Park, Cathedral Peak

On Saturday, November 10, Peter Noble (44) and I, Scott Berry (37), set out to climb the Southeast Buttress (five or six pitches, 5.6) to the summit

of Cathedral Peak (10,911 feet). I had been bagging peaks and leading trad routes up to 5.9 for a few years. Peter, my best friend, had been at it for two. We hadn't climbed this peak before, but we'd researched the route thoroughly and knew it was well within our technical abilities. We also knew it was storm season, but the Thursday evening and Friday morning forecasts called for sunny on Saturday and mostly cloudy on Sunday, with no precipitation in sight. We drove up to Tuolumne Meadows Friday night. A problem with the clock in our cellphone Saturday morning put us two hours behind our intended 0630 start. The days were short now, but we weren't concerned. We planned on hiking back in the dark that evening anyway and even rappelling a few pitches by headlamp if necessary, something we'd done deliberately before.

A ranger stopped to chat as we organized at the trailhead, but we didn't think to ask for a weather update. It wouldn't have mattered anyway. We figured we'd be out before any storm and felt we were prepared if one did hit us.

We carried a double rack of protection, a 60m lead rope, a 60m x 8mm trail line, ascenders, helmets, and headlamps. Peter wore lightweight synthetic pants and a fleece sweater. I had heavy canvas pants and a cotton T-shirt. We both had lightweight wind- and water-resistant soft-shell jackets, which had done well in alpine snowstorms. Should we be stormed on here, our upper bodies at least would be dry and only our legs exposed. We left our heavy rain gear in the car—the first time I had ever done so in 12 years in the Sierra. Anyway, it was only two and a half miles from the base of the climb back to the road, and downhill at that. What could possibly happen to prevent at least one of us from coming out for help?

We started up the Budd Creek climbers' path at 0830 and reached the climb late-morning. Among several variations, we chose the "standard" route, on the left. Our intent had been to haul our packs with the trail line, but the route was too shattered and low angled to keep them from hanging up. Not wanting to carry them all day and to keep them away from marmots, we left them on a ledge 100 feet up the first pitch. It was low fifth-class and we could easily retrieve them on descent. We left our hiking boots, heavy wool socks, lighter, and extra food and water with the packs. I stuffed my jacket into the fanny pack Peter would carry up the climb.

The day was beautiful—sunny with high clouds, warm, and calm—and we did the entire route in shirtsleeves. The climbing was easy and so much fun that Peter twice lowered and repeated pitch 3, the Chimney pitch.

We didn't intend to keep rigorous track of the time, and neither of us had brought a watch. We hoped to estimate the time with our cellphone, but by late afternoon, with one long pitch to go, we realized that the phone's clock was still behind by a couple of hours. There was finally a bit of wind,

now—just barely. More seriously, the skies to the south and north were graying over, and long, thin tendrils of darker clouds reached around the peak and drifted over the Meadows under the higher layer. The east was picture-perfect, and a little rain—let alone a storm—seemed unlikely to us. We were only concerned about the time, as the sun had passed behind the peak, and not at all worried about the weather. We debated whether to call it a day and decided that, while neither of us minded retreating at this point, we could probably finish the route if we hustled. I realized, however, that we were committing ourselves to more rappels in the dark than we'd originally intended.

When I reached the base of the summit blocks, I saw a huge, solid black cloud to the west, hidden from our view until now by the peak. The wind was strong and coming from all directions, since the buttress no longer protected me. Peter came up fast and we considered our options, knowing we would not be down before the storm hit us.

We could cross the summit ridge to the usual fourth-class descent on the west face, then descend third-class slopes around the north side of the peak to the base of the route. We knew of this descent, but we couldn't see it from our position and I didn't feel there was time to cross the ridge and evaluate it. Besides, we were more comfortable with a fifth-class rappel than class four of unknown length in the dark, on the face most exposed to the wind, and on the side of the peak opposite our packs.

Our original plan had been to recover the packs as we rappelled the climb, but we now felt we'd be fully exposed to the wind on that descent. Instead we decided to rappel the face just left of the climb. From what we could see below us, several ledges offered good stances, allowing shorter, more secure drops in what was clearly going to be a nighttime retreat, and its southerly aspect might shield us better from the wind. Like the climb, this face was also fractured, posing a risk of hanging up the rope. Because of the conical shape of the buttress, it looked to us that we would reach the ground several hundred feet left of our packs. By this time I had put on my jacket. Peter had inexplicably left his in his pack, five pitches below, leaving him with only the fleece sweater. Neither of us had warm hats or gloves.

The ropes jammed on the first rappel and nothing we tried would move them. We wanted to stay ahead of the storm and we planned to make short rappels anyway, so to save time I climbed half way up to the anchor and cut both lines. We were left with 120 feet of lead rope and most of the trail line. We elected to make short rappels for better control of the rope, so Peter coiled the trail line and lashed it to his back. From here on we simul-rappelled on the lead line, with the mid-point of the rope at the anchor and one of us on each strand. Being side-by-side was helpful. We could hear each other despite the wind and work out problems on the descent.

We descended as safely as we could, using autoblock back-ups between our harnesses and the rope. Each rappel was 40-60 feet.

The sun set and we broke out the headlamps on the second rappel. At this point the cellphone rang. It was our friend Michael. Peter told him we were descending and would return home Sunday. We didn't feel the need for help at that time and were surprised at the good reception. Later, when we were desperate, we could not get a signal.

By now it was pitch-black. The temperature plummeted, it started to snow, and the wind was picking up. Three rappels later we were in a full gale that blew the ends of the rope above us, and the snow turned to sleet, coating our helmets, hardware, and clothes in ice. Ice water poured down the rope, soaking our hands, and we were shivering violently. There was no crack or feature in which to hide. I was surprised that my shirt was still dry under my jacket, but my legs and cotton pants were quickly soaked and stayed that way. Without his jacket, Peter was soaked from head to toe. We joined our lights to scout the route ahead, but sleet covered my glasses and fog cut visibility to 15 feet.

As time passed, my condition deteriorated dangerously: I slurred my words. My vision went temporarily black. I spent ten minutes trying to rig my autoblock, normally a 30-second procedure. I looked for a carabiner for five minutes when there were many clipped to my harness. As we began one rappel, I paused to adjust the anchor, then left the rope entirely unclipped, catching my error just as we stepped to the lip. Peter seemed stronger, taking on chores that confounded me, and I asked him to check everything I did. For the first time, I thought, "We are going to be in real trouble in another hour."

At one point I noticed that the trail-line was no longer on Peter's back. It had somehow detached, leaving us without the option of longer, two-rope rappels or a backup if we lost what remained of the lead rope. We knew the wall steepened below and we worried about dangling on the end of our rope looking for anchors in our debilitated condition. So we now avoided vertical drops and followed ramps and clefts that traversed steeply down and right. Nevertheless, we had to climb to free our rope at least once more. Somewhere below the halfway point, Peter slipped on a slab and swung into a corner. The impact separated his lamp—a detachable model—from its strap, sending the light down the cliff and out of sight.

We'd been using up our cams and nuts for anchors, doubling them up with no thought to their cost. The 14th or 15th drop found us on a slab with no cracks in sight. We were forced to rely on a single, small, marginal cam. As we descended from it, we thought we could see the ends of the rope lying on snow below us. We hoped that was the ground at last, not just another ledge. Halfway down, the anchor placement failed. We tumbled

and cart wheeled and I knew that if this were not the last rappel, it would certainly be the last for us. Fifteen feet lower, we stopped in snow and slush, surrounded by snow-covered trees. We were down. We got up, discovered we were uninjured, and laughed it off. I guessed the time at midnight, but it could have been later.

The cliff was a sheet of ice and the wind and sleet as strong as ever. Recovering the critical gear in our packs located 100 feet higher and who-knew-how-much-farther east was out of the question, even if we managed to identify the pitch in the dark. We would have to hike out in our smooth-soled climbing shoes—no jacket for Peter and no way to build a fire.

We had two objectives. First, reach the denser trees along the creek below to seek shelter from the wind. Second, follow the drainage downhill and north toward the road. Becoming lost in this simple topography should be impossible, even in the dark, but any sign of a climber path was obliterated by three or four inches of snow and ice. No matter—parallel the creek, hit the main trail, then the road. Just don't stop. We ditched our gear.

Though sloping gently, the talus slope was so icy that every move sent us sprawling. We walked on all fours, like crabs, over the top of the rocks and into the forest. As we reached the trees we both fell down again, but this was different. We'd been going non-stop for at least 16 hours, we were exhausted, dehydrated, and our legs—not just our fingers and toes—were numb from cold, the muscles barely working. With great difficulty, we got up, trying to help each other, but we both toppled over again. We had two miles to go at that point—on legs that felt like stilts. A log we would have jumped over in the morning required both of us working together to pass on hands and knees. We looked for any sort of windbreak, but there was nothing, so for hours we continued walking and falling, along the creek.

Whereas Peter had held up better than I as we rappelled, he deteriorated faster now and I seemed to rally. He fell more often and stayed down longer. I was still on my feet half the time and I thought we might make it if one of us stayed up. I tried to help him walk, but I lacked the strength to support him or even to grip his sweater. Eventually he simply crawled because it was easier that way.

All night Peter had been rational, even joking, but then he said, in a calm voice, "Maybe we can get some in those shops over there." I warned him that he was hallucinating and urged him to get it.

We had progressed a little further, when he simply rolled over onto his back. I yelled, "Peter, you have to get up or you'll die!" "That's OK," he said, but he rolled onto his hands and knees and continued forward. Then he said, "Who are all of these people around us?" "They're our friends," I replied, now certain that neither of us would make it. And he said, "Oh, it's OK then." We had moved again a tiny bit, when he asked, "What is that

bright light over there?” As I turned to look, he collapsed onto his back and jerked once. A rattling sound came from his throat, then he lay still. I called his name and shook him.

I couldn't check his pulse, since I hadn't been able to feel my hands for hours. I tried to listen for breathing, but I was shaking too hard. For 15 minutes I administered CPR, remembered from Boy Scouts. Finally I realized that, if Peter were not already gone, he would be shortly, and there was nothing more I could do. I was barely standing. I felt the chance of getting out, myself, were slim to none, but if I were to survive I had to leave. Also, I thought—though I didn't really believe this, “If I get down there might be a chance for Peter.” I took the phone and car keys from his jacket.

As I was leaving, I noticed the dim form of a tree trunk 30 feet away and I realized it was daybreak. We had traveled hours on hands and knees. It got brighter and warmer as I descended. I was staying on my feet longer and eventually I found the climbers' path, under the snow. Nevertheless, the final mile and a half after leaving Peter was the hardest physical challenge I've ever met. When I finally hit the main trail, I knew I could make it. I was incredibly thirsty. I made straight for the water and food in our bear box, then went to the car. At that instant, I heard an approaching truck. It was a Ranger. I flagged him down. A Park Service team gathered immediately and followed my tracks back to Peter. By that time it was too late. A subsequent autopsy confirmed the obvious: death by hypothermia.

After six months, feeling has returned to my fingers and toes and shooting pains in my hands have subsided. More surprising was the pronounced, though temporary, effect on my left-brain—difficulty with routine calculations, names of friends and family, and short-term memory. I could sense co-workers waiting patiently as I processed my thoughts. (Source: We are grateful to Scott Berry for providing this narrative material, which has been edited only slightly.)

Analysis

The primary cause of this tragedy was insufficient clothing for prolonged and full exposure to the storm. Many things happen in the mountains, even on easy climbs, and can involve experts and beginners alike. Myriad “unlikely” events, including inaccurate forecasts, a late start, a stuck rope, a dropped rack, or a broken ankle high on the route, are secondary to being prepared to sit immobilized and fully exposed to the weather, in any location. In Scott and Peter's case, they started out under-equipped, lacking warm hats, gloves, fleece, and rain pants. Then they separated from the critical gear they did bring—Peter's jacket, their hiking shoes, and fire starter—and left it in a potentially inaccessible location. One key exception to all preparations is that if a lightning storm is headed your way, sitting there is not an option. Descend as fast as you can.

Additional Considerations

The forecast: Weather Service forecasts on Friday and Saturday mornings called for 20-50 percent chance of snow Saturday night/Sunday morning. The forecast is available in the park by phone, 24/7.

The late start: This is not necessarily an issue if you go prepared to climb or hike at night, with a descent plan and survival gear, but if you add any of the “unlikely” ingredients, your risk increases.

The “short” distance to the road: Remoteness should be measured by time, not distance. You can be in serious trouble while in sight of the car and should plan accordingly. (See Yosemite, Royal Arches, V. Madrid incident, in this issue.)

The weather surprise: As we have noted before, there is really no such thing as “bad” weather. The weather you get is what you have. Lightning is always a possibility in locations like this, often hidden until the last moment.

The descent plan: Given the location of their survival gear, reversing the route was their best option, and in hindsight, Scott should have rappelled back to Peter at his first glimpse of the storm. As an alternative, the fourth-class descent was the fastest way out, putting them at the base of the climb in a couple of hours, but Scott and Peter lacked confidence with this kind of terrain. Some critical components of a descent plan are (1) a set of retreat criteria—dark clouds and a turn-around time, for example; (2) a plan for every point on the route; and (3) caution when changing the plan.

Rappel tactics: Short rappels often lessen the risk of a stuck rope, especially in the winds Scott and Peter faced, but this means more anchors and more time are required for the descent. Had they chosen to continue rappelling on what remained of both ropes they could have cut the number of rappels by roughly half.

Losing the headlamp: The best way to carry spare batteries is inside a spare LED headlamp.

Navigating in the storm: After the accident, rangers climbed Scott’s and Peter’s ascent and descent routes, documenting and recovering their packs and rappel anchors. Because they had been forced to rappel to the right and in poor visibility, Scott and Peter had unknowingly merged with their original climbing route at the top of the first pitch, despite thinking they were hundreds of feet to the left. In a twist of fate typical of disasters, they had climbed a slightly different variation that bypassed that particular anchor, so as they rappelled from it, they did not recognize that their packs lay only 30 feet to the right. (Source: Scott Berry and several NPS Rangers, Yosemite National Park)

(Editor’s Note: More details of this incident are available at the website: www.friendsofyosar.org)