Analysis

A good example of the ability of a climbing party to initiate a self-rescue and the effectiveness of a well-trained SAR team. (Source: Steve Winslow, District Ranger in the NPS Morning Report for October 28, and www.firerescuemagazine.com)

FALL ON ROCK – RAPPEL ERROR, INADEQUATE PROTECTION– OLD ANCHOR WEBBING PARTED, INADEQUATE EQUIPMENT – NO HEADLAMPS

Kentucky, Red River Gorge, Emerald City

On November 4, the bodies of Benjamin Strohmeier (18) and Laura Fletcher (18) were found near the base of a climbing route in an area of USDA Forest Service land, known in the climbing community as "Emerald City". They were found fifty feet below a belay station used to set up a second pitch rappel from a top anchor. They had apparently fallen from a small ledge at this belay station. The fall was essentially vertical. There were no witnesses to this incident.

After the coroner took photos, the victims were freed from the rope and climbing gear and removed from the scene. The climbing gear and the victims' possessions were taken into evidence by the Forest Service and upon examination of all the evidence, the cause and sequencing of the incident was unanimously agreed upon, the details of which follow.

About 4:00 p.m. on November 3, Strohmeier was observed leading a trad line directly above the incident scene. The eyewitness, who was standing about 300 yards away at the road, did not see Strohmeier's belayer, as trees obscured his view. It is assumed that Fletcher was his belayer. This may have been the last time anyone else saw either of the victims alive.

The climbing pair rappelled down to a lower belay station on a small ledge 50 feet above the base of the climb. The base consists of rock-strewn earth directly below this lower belay station. The belay station ledge is small but was of sufficient size for the pair to stand together, hands free.

At the belay station, the pair found an anchor system consisting of a 36-inch length of 1-inch tubular nylon webbing threaded through an aluminum rappel ring and two hanger brackets. The webbing ends were joined using a water knot. Although the hangers and bolts were heavily rusted, subsequent inspection showed that they would probably have supported the load of a rappelling climber. However, the webbing was so badly weathered and deteriorated that it could not and, in fact, did not support that load.

The sequence of events was thus: Strohmeier clipped a quickdraw onto the belay loop of his harness, clipped another quickdraw onto the end of the first one, and then clipped the distal carabiner of the two chained quickdraws onto the webbing. He did not clip into the rappel ring. This action essentially tethered him into the anchor system, which would have

kept him safe from falling off the ledge if the anchor system had been in good condition and the webbing had not failed.

Fletcher at or near the same time started to rig for a rappel to the ground from the belay station. She fed a 60-meter dynamic, bi-pattern climbing rope through the rappel ring on the webbing and pulled it through until the middle of the rope was near the rappel ring and the two ends of the rope were hanging down the cliff. Fletcher threaded both sides of the rope exiting the rappel ring into a Petzl Reverso belay/rappel device. She then captured the two bights of rope in the Reverso and the Reverso's larger loop with a locking carabiner and clipped this assemblage to her belay loop. She had now set herself up to rappel from the belay station, although she did not use any type of backup.

It is important to note here that at some point prior to Fletcher starting her rappel, Strohmeier took the fatal step of clipping his distal carabiner on his chained quickdraws not only onto the webbing, but also onto the rope between the top of Fletcher's Reverso and the point where it threaded through the rappel ring. It is possible that he did this intentionally for some unknown reason, or it could have been done unintentionally, due to diminished light. He was now clipped both to the webbing and this bight of rope.

Fletcher stepped off the ledge to rappel and weighted the rope and anchor system. At or shortly after this point in time, the webbing experienced a catastrophic tensile failure. The rappel ring was freed from the webbing causing Fletcher to fall. And, because Strohmeier was clipped into the bight of rope coming out of Fletcher's Reverso, he was yanked off the ledge by her weight. Both of them experienced a free-fall of about 50 feet to the ground.

The victims were found with about six feet of doubled rope joining the two climbers together between her Reverso and his distal carabiner. Unfortunately, when the rope was cut to remove the victims, the rappel ring fell out of the system. Without knowing exactly where this ring was located in the system, the exact cause of the incident might not have been conclusive. However, close examination of the Coroner's photos taken before the rope was cut and gear was removed clearly shows the rappel ring in the position it had to be in relative to the other gear for this incident to occur as described above.

Analysis

At 3:53 p.m. on November 3, the Jackson Airport Weather Station (approximately 20 miles from the incident scene) reported a temperature of 71.1 degrees F, wind NW at 4.6 mph, and skies clear. Sunset at location was at 5:53 p.m. The rock wall at the scene is southwest facing. Cliffs across the road to the west tower over 300 feet above the road and could render the incident scene in significantly diminished light even before sunset.

The human factor cause of the incident was an error in judgment. Rather than leave gear behind at the anchor station—gear such as a runner and/or carabiners, both of which the two climbers had with them—they elected to trust their lives to an ancient, weathered piece of webbing.

Another possible contributing factor is that because only the leader, Strohmeier, was seen topping out and Fletcher had not started climbing this route by 4:00 p.m., it may be that the climbing pair did not start the rappel until it was relatively dark. No headlamp or flashlight was found on or near the victims. Without means to light their way or illuminate the gear present on the wall, this could account for the pair's decision to trust webbing, which may have seemed to be in better condition than it actually was. (Source: Richard Weber, Team Leader—Red River Gorge Mountain Rescue Team For USDA Forest Service Law Enforcement)

AVALANCHE, CLIMBING ALONE, POOR POSITION

New Hampshire, Mount Washington, Huntington Ravine, Odell Gully

At 9:20 p.m. on January 18 the USFS Snow Rangers were informed that a solo climber (39-male) from Lewiston, ME, was overdue from his climb in Huntington Ravine. He had signed into the winter climbers' register at Pinkham Notch with a plan of climbing Central Gully. According to his friends who reported him overdue, he had experience in many gullies in Huntington Ravine and had talked about Odell Gully as another option for his day.

A team searched the access routes into Huntington Ravine between 10:00 p.m. and midnight on the 18th. Due to snow stability concerns, search teams didn't enter avalanche terrain until first light the next day to begin searching Huntington Ravine. Shortly after sunrise, the missing climber's body was found in avalanche debris below Odell Gully. The climber was on top of the debris and died as a result of being avalanched out of Odell Gully. He was put in a technical litter, lowered 500 feet to the floor of the Ravine, and transported to Pinkham Notch by the USFS snowcat.

Analysis

The avalanche danger rating for January 18 was posted High for all forecast areas in Huntington Ravine. The definition of this rating states natural and human triggered avalanches are likely, unstable slabs are likely on a variety of aspects and slope angles, and travel in avalanche terrain is not recommended. This rating was based on active wind-loading of new snow that had been accumulating since snowfall began around 4:00 a.m. that morning. Winds associated with the storm began out of the south before shifting to the west around 12:00 p.m. and increasing to the 60-70 mph range with a peak gust on the summit out of the west of 86 mph at 5:42 p.m. Recorded snow totals from this storm were 3.9 inches at Hermit Lake and 3.1 inches