

summit when the accident occurred. He said that she had a severe open fracture of her left elbow, a possible fractured left ankle, head lacerations, and other possible (internal) injuries (later confirmed at the hospital).

Contract helicopter 3HP was immediately requested and the rescue effort was initiated. Ranger J. Springer (spotter) flew an initial recon flight at 1700. Ranger A. Byerly then flew internally to Lake of the Craggs. He reached Plaut at 1817 and rendered medical attention. Medical control Lanny Johnson, PA, was contacted. In addition to the injuries listed above, Plaut presented lower pack pain and was shivering from cold. Byerly immediately initiated full C-spine precautions, an IV, one gram of Ancef (at 1844) and heat pads. A decision was made to short-haul Plaut due to her injuries, lateness of the day, and potential injury to rescuers if other methods of evacuation were employed.

After immobilizing Plaut, she was short-hauled to Lupine Meadows Rescue Cache by 2017 and transferred to an ambulance. (Source: George Montopoli, NPS Ranger, Grand Teton National Park)

Analysis

Many who climb Symmetry Spire do the same thing Laura Plaut did for the final part of this climb. There have been many falls here. In this instance, the fall was probably caused because a hand-hold came away. Guides and even experienced climbers usually stay roped for the entire ascent. (Source: Jed Williamson)

RAPPEL FAILURE—ANCHOR CAME APART, INADEQUATE PROTECTION

Wyoming, Grand Teton National Park, Garnet Canyon

On September 15 about 1930, Julien Roques (20) fell 350 feet from the third pitch of the Open Book in Garnet Canyon. He sustained severe injuries during the fall resulting in his death.

Analysis

Upon investigation on the morning of September 17, it was noted that Roques was correctly attached to his rappel device and his fall initiated at the start of his rappel. Two descending rings were found attached to the rappel ropes near the victim. Since the descending rings were devoid of any part of the anchor system, investigating rangers assumed the anchor system failed on one side, allowing the descending rings to slide off the webbing or the webbing failed completely. The failed anchor system had to be at the location of their last rappel.

Rangers Jack McConnell and Leo Larson climbed two pitches of the Open Book route and located the failed anchor system. As suspected, part of the anchor system had failed, allowing the two descending rings to slide off the webbing. On closer inspection, the following was found: A short length of blue $\frac{1}{16}$ -inch webbing had been knotted on *both ends* with a shorter length of red one inch tubular webbing threaded over it to act as a protective sheath. One knotted end of the $\frac{1}{16}$ -inch webbing was inserted in a crack system that tapered down to about $\frac{1}{16}$ -inch in width, allowing just enough space to thread the webbing through for about four inches. The other end of the $\frac{1}{16}$ -inch blue webbing was looped back through the $\frac{1}{16}$ -inch slot and the end knot wedged in

the same crack system above. A short loop of the blue $\frac{1}{16}$ -inch webbing with the red protective sheath and two descending rings were the complete anchor.

When Julien Roques and Mike Dollarhide (his partner) arrived at this *pre-rigged* anchor after their first rappel from the top of the Open Book, they inserted a camming device as a safety backup to the blue $\frac{1}{16}$ -inch webbing anchor described above. Mike Dollarhide rappelled first on their 60-meter ropes and safely reached the bottom where they had started a few hours before. According to Dollarhide, the blue $\frac{1}{16}$ -inch pre-rigged anchor held all his weight and that the back-up cam was not weighted. At this rappel, Roques and Dollarhide discussed pulling the safety back-up cam if the main anchor held well on Dollarhide's rappel. Mike Dollarhide started his rappel from the top of the flake *below* the anchor. This resulted in a directional downward pull. Since Dollarhide's rappel went well, the back-up cam was pulled by Roques. Roques then began his rappel and the fatal accident occurred.

Since Julien Roques was alone, his final actions at this rappel station will never be known. Based on evidence at the scene, Rangers Jack McConnell and Leo Larson came up with the following possible scenarios leading up to the catastrophic anchor failure:

(1) An end of this two-knot anchor simply failed after repeated use. This anchor was not inspected in detail either by Roques or Dollarhide. In fact, they thought the blue $\frac{1}{16}$ -inch webbing completely *looped* through the rock and was tied with a water knot in the rear. It is possible the two end knots in the blue $\frac{1}{16}$ -inch webbing were *stacked* in the crack system, allowing the top knot to slide over the top of the bottom knot and out of the crack system. (Note: The failed end was still knotted—the knot did not become undone.)

(2) The safety back-up cam was placed above the main anchor system. Roques would have had to climb up off the top of the flake to remove the anchor. If he started his rappel a little higher than Dollarhide, this would have resulted in a slight outward directional pull on the anchor, increasing its likelihood of failure.

(3) Julien Roques could have attached the ropes to his rappel device, climbed up to remove the back-up camming device, and then slipped. This would have shock-loaded the anchor, increasing its chance of failure.

It is ironic that this accident happened on a route that until very recently was walked off from the top. Only in the last couple years have some climbers opted to rappel this route. (Source: Leo Larson, NPS Ranger, Grand Teton National Park)

(Editor's Note: No reports from Devil's Tower were sent forward this year. After publication last year, a report of a fatality there came in from Kyle Dahm, who was climbing at the time of the incident. A middle aged man was descending after having been on the route Sundance with four others. He either rappelled off the end of his rope or fell while trying to scramble to a set of anchors for the final rappel.)