



AAC Publications

Lowering Error – Clipped Wrong Rope Into Anchor

New Mexico, Diablo Canyon, Sun Devil Wall

On January 18, at approximately 2 p.m., Climber 1 fell from the top anchors of pitch two of Appendicitis (5.10a) on the Sun Devil Wall. She fell approximately 170 feet to the ground. Trained medical professionals were climbing nearby and immediately rendered aid, including CPR. An emergency medical helicopter was quickly called and arrived within one hour. The climber died at the scene from her injuries without regaining consciousness.

ANALYSIS

Diablo Canyon, near Santa Fe, has multiple routes longer than 30 to 35 meters, and parties will frequently set up a long top-rope, using two ropes tied together, for others to climb the route after one climber has led it. On the day of this accident, others in this climbing party (Climber 2, Climber 3) led the route in two pitches and then set up a two-rope system, using two slings and four locking carabiners at the top anchor. The two ropes were of similar diameter and ample length, and were joined with a triple fisherman's knot. Climber 2 and Climber 3 then rappelled the route in one double-rope rap.

The climbing party's procedure for top-roping on two ropes involved belaying on the side of the joined ropes with the fisherman's knot. In order to avoid the need to pass the fisherman's knot when it reached the belay device, the climber would tie in short on the other strand of rope, clipping a figure 8 on a bight to a locking carabiner clipped to the belay loop of his or her harness. Therefore, the climber had a long tail of extra rope dangling while climbing. This top-rope setup was common for the crag, and the climbing party was local. Others in the party top-roped the route in the same manner on that day without incident.

The next climber on the route (Climber 4) carried steel carabiners to leave as fixed gear at the anchors, attaching them to existing chains on the two anchor bolts to facilitate anchor cleaning and lowering. Many routes in the area have fixed carabiners for lowering, left by earlier climbers.

As the last person to top-rope the route for the day, Climber 1 agreed to clean the anchors. She planned to transfer the rope from the slings and lockers at the anchor to the two new fixed carabiners and remove all the other gear. Climber 1 then would be lowered, which was communicated to the belayer (Climber 4) before starting the climb.

Climber 1, age 59, had extensive personal experience with this method of top-roping and cleaning anchors. Her typical procedure would have been to (1) clip directly into both anchor bolts using a personal anchor system; (2) remove the temporary anchor attachments, letting the rope hang from her harness attachment point; (3) place the rope into the fixed carabiners for lowering; (4) check her setup; and (5) remove her personal anchor system to be lowered. On this occasion, Climber 1 called several times to the belayer for "take" and "slack," which was presumed to be verifying the rope arrangement. Then, presumably after removing her personal anchor system from the bolts, Climber 1 fell to the ground.

The most likely explanation is that Climber 1 confused which side of the rope running from the bight clipped to her belay loop was the end tied to the second rope; she apparently thought the free-hanging

length of tail was the side being belayed and incorrectly clipped that side into the fixed carabiners. Thus, once she unclipped from the anchor bolts and weighted the rope, the free-hanging tail of rope quickly ran through the carabiners. After the fall, it was observed that the cleaned anchor attachments and Climber 1's personal anchor system were clipped to and intact on her harness, her harness had no damage, and her figure 8 knot was still tied correctly and attached to her harness via a bight with an undamaged locking carabiner. Both ropes were intact and fell to the ground with her, still tied together. If the two ropes hanging from the figure 8 on a bight clipped to her harness had twisted and wrapped around each other, this might have led to confusion about the correct strand of the rope to clip into the steel carabiners for lowering, particularly since both strands would be the same color and pattern. The tail of the rope would have been at least 50 to 60 feet long (not an insignificant length or weight). If the personal anchor system clipped to the bolts was relatively short, her weight may have been held mostly by that system (almost a hanging belay), making the tug of "take" more subtle. The long distance of the two-pitch route made communication difficult, especially because a breeze was blowing. It was also the last climb of the day, and she may have been fatigued after climbing the full 170-foot route.

This accident has served as a sobering reminder to local climbers to take more time to double-check ourselves and our partners. Some climbers who top-rope these long routes at Diablo Canyon now place both strands of the rope that's clipped to their belay loop into the lowering carabiners at the anchors; this ensures that even if the trail rope accidentally is clipped, the main belay rope will be clipped too. Others are now in the habit of having the last person rappel to clean the route instead of lowering; we recognize that you still must not screw up the rappel, but there is less potential for confusion.

Climber 1 was a pillar of the local community, who introduced many people to climbing, and is terribly missed by all who knew her. (Source: Heather Volz, in collaboration with the local climbing community.)

Images



Diablo Canyon, New Mexico

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