



AAC Publications

Dropped Haul Bag Breaks Climber's Arm

California, Yosemite Valley, El Capitan

On June 16, at approximately 12:30 p.m., Yosemite Dispatch received a 911 call about a climber injury on El Capitan in the vicinity of the Heart Ledges rappels. Pete, Mark, and Vlad had just finished climbing Little John Right, a three- to four-pitch 5.8 route at the base of the west wall of El Capitan. (The names of all climbers have been changed in this report.) While Vlad was belaying Pete to the top of the climb, Mark began setting up a rappel from the bolted anchors on the left side of the pinnacle. Vlad and Pete joined him at the rappel station as Mark headed down. Upon reaching the ground, Mark yelled, "Off rappel!" to his partners. Very shortly after this, Vlad and Pete heard "HAUL BAG, HAUL BAG, HAUL BAG!!!" screamed from above. Vlad, who had already rigged for rappel, pressed flat against the wall. Vlad remembers that Pete was sitting and unable to move out of the way quickly, and he was hit in the left arm by a fully loaded haul bag.

The haul bag came from a party above that was rappelling from Heart Ledges, retreating due to time constraints. This party consisted of climbers Jeff and Aaron. At the time of the incident, Aaron was on the final rappel and getting close to the level of Little John pinnacle. Jeff, who had been rappelling with the haul bag, was one rappel higher and about 100 feet above Little John pinnacle.

Upon seeing what happened, Aaron, who is a wilderness first responder (WFR), swung hard to the right to reach the ledge and immediately began assisting. Jeff, who is an emergency medical technician (EMT), hastily rappelled to the ledge and began helping as well. Mark and Aaron had cell phones but initially could not get service; eventually Aaron managed to call 911, which patched him through to YOSAR.

On the ledge, the party's main concern was to control bleeding from Pete's left arm, which appeared to have suffered a severe, open fracture of the humerus. Initial attempts at direct pressure failed to stop the hemorrhaging, so the team attempted to tourniquet Pete's arm, first with a shirt and then with a sling. [Editor's note: Direct pressure should be applied for five minutes on all wounds except those that are spurting (indicative of an arterial bleed) or bleeding extremely rapidly. Use of a sling for a tourniquet should be a last resort. Narrow (less than 1.5 inches), unpadded material is generally ineffective and will cause tissue damage and complicate surgical repair.] **The tourniquet was unsuccessful, but eventually they managed to control the bleeding using continuous direct pressure with clothing.** Due to the unstable nature of the injury and the bleeding, the team decided to wait until YOSAR arrived instead of attempting a self-extrication. Jeff did a patient assessment and found nothing significant beyond the extreme trauma to the patient's left arm. While waiting on the ledge, the team continued to check CSM (circulation, sensation, motion) in Pete's left arm every five minutes.

At approximately 12:55 p.m., a "hasty team" of park rangers arrived at the base. They informed the climbers that a technical team and advanced life support was en route, but it would likely take at least an hour for them to get into position and complete a rescue lower. With this information, the group decided to stabilize Pete's arm as best they could, using shirts, hiking poles, and materials from Aaron's first-aid kit, and rappel with Pete to the ground to meet the rescue team.

After packaging Pete's arm, Jeff rigged for a tandem rappel using a modified version of a rescue spider, a rappel configuration that allowed Jeff to rappel down the line along with Pete, carrying Pete's weight on the rappel device. (It should be noted that this was essentially the same method Jeff

had used to rappel with the haul bag that dropped; with various iterations, it is a common way to rappel with a heavy load.) As Jeff and Pete reached the base, the full rescue team arrived. YOSAR paramedics assessed Pete and repackaged his arm. After an initial attempt at an assisted walkout, it was decided to package Pete into a litter and carry him down the trail. He was flown in a medical helicopter from El Cap Meadow.

[Left] Mockup of the rigging used to rappel with a haul bag in this incident.

The locking carabiner clipped to the yellow slings (connecting the haul bag to the rappel carabiner) is believed to have unclipped. Including the haul bag connection (not shown), this setup used seven carabiners. **[Right]** A much simpler setup with a doubled cordelette to connect the rappel device to both the climber and the haul bag (gray slings), using only two carabiners.

ANALYSIS

Jeff had been rappelling with an ATC extended from his harness on two Purcell prusiks. These were each clipped separately to a locking carabiner (the masterpoint) that was holding his rappel device. His rappel was backed up by a prusik hitch on the rope below his ATC.

To carry the haul bag, Jeff had clipped another locking carabiner to the master point, clipped a sling to this, and clipped the sling to the haul bag. He clipped a second sling from the haul bag directly to the same locker that was clipped to the masterpoint. (See photos.) Each sling was attached at the haul bag with an individual non-locking carabiner, and the two were opposite and opposed.

While some specifics were lost in the chaos or simply could not be recalled, it is known that, while Jeff was rappelling, the haul bag caught on a small ledge. This caused the slings holding the bag to go slack temporarily. When the bag released from the ledge, it somehow unclipped from the masterpoint and dropped.

Although no one in either team was 100 percent sure, they are fairly certain that when the bag landed on Little John, both runners were attached to the haul bag. This would mean the failure point was at the locking carabiner clipped into the masterpoint. Jeff believes the locker that was holding the two runners going to his haul bag opened and simultaneously released the two attachment points. Whether he failed to lock it before starting down or it unlocked during the rappel due to vibration and improper orientation is unknown.

The fact that multiple people involved in this incident had medical training and/or self-rescue knowledge was critical to saving Pete's arm and his life. Other takeaways from this incident:

- Always check that your locking carabiners are locked, and periodically double-check that they've stayed locked.
- Although Jeff's basic system for rappelling with the haul bag was properly configured, there are simpler ways to rig this rappel. The number of carabiners in Jeff's rigging may have contributed to a failure to recognize the unlocked carabiner. Simplicity is an element of safe climbing systems.
- Be constantly aware of your surroundings while climbing. Parties climbing and rappelling above you are always a cause for concern.
- Yelling "ROCK!" loudly and repeatedly is the best way to get the attention of people below. The climbers could have been momentarily confused by the yelled words "haul bag." (Source: Yosemite National Park Climbing Rangers.)

Images



[Left] Mockup of the rigging used to rappel with a haul bag in this incident. The locking carabiner clipped to the yellow slings (connecting the haul bag to the rappel carabiner) is believed to have unclipped. Including the haul bag connection (not shown), this setup used seven carabiners. [Right] A much simpler setup with a doubled cordelette to connect the rappel device to both the climber and the haul bag (gray slings), using only two carabiners.

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