



AAC Publications

Rappel Anchor Failure – inadequate Anchor and Backup

Washington, Mt. Rainier National Park, Dewey Peak

On August 14, three climbers summited Dewey Peak, a 6,710-foot mountain on the east side of Mt. Rainier National Park with a third- or fourth-class route to the top. The climbers had met earlier that year in a local climbing course, in which Climber 1 acted as a volunteer instructor and Climbers 2 and 3 were students with no previous experience. After summiting, Climber 1 first inspected the normal rappel from Dewey Peak, then decided to look for an alternative anchor.

Climber 1 selected a large block to sling for an anchor. The rock was about the size of a microwave oven and tilted only slightly above horizontal in orientation. After debating the merits of this anchor and looking for other options, the party agreed to use the large rock as the primary anchor and place a backup for the first couple of rappellers.

The primary anchor consisted of a doubled cordelette slung over the rock and tied into a master point. The backup was a cam placed in a crack four to six feet behind the cordelette anchor. The cam was connected to the cordelette by a prusik cord hitched to two opposed non-locking carabiners, which were clipped to the cordelette on top of the block.

The climbers rappelled with a doubled 60-meter rope. Climber 1 went first, based on the idea that he was the heaviest and could straighten out rope tangles ahead of the two student climbers. Climber 2 rappelled second. Climber 3 (male, age 35) was told by Climber 1 to clean the cam anchor before rappelling. He removed the cam and carabiners clipped to the top side of the cordelette anchor. As he rappelled, the cordelette slipped off the rock and Climber 3 fell to his death.

ANALYSIS

Tacoma Mountain Rescue and the National Park Service revisited the scene of the accident on August 25 and re-created the rappel anchors, based on photographs taken by Climber 3 before the accident and recovered from his phone. An evaluation determined that the two carabiners connecting the cordelette to the prusik sling had helped hold the cordelette in place. When the first two people to rappel loaded the cordelette with their weight, the carabiners essentially pinned the cordelette in place on top of the block. Once these carabiners were removed, the cordelette was only held in place by friction, which was insufficient to keep it from rolling and slipping off the rock.

As is often the case with alpine climbing accidents, this was the result of a series of decisions, any one of which might have prevented the accident. These include:

- Not using the peak's standard rappel anchor.
- Rappelling instead of downclimbing or lowering the student climbers.
- Choosing a block anchor without a sufficient lip or horn to hold the cord securely.
- Use of cord instead of slings to build the anchor (sling material would not be as prone to rolling).

- Loosely slinging the cordelette rather than girth-hitching it around the block.
- Arranging the backup in such a way that the cordelette had to be lifted to clean the carabiners, possibly making the cordelette less secure.

Putting an inexperienced climber in the position of cleaning the backup, evaluating if the cordelette anchor had been compromised by removing the cam and carabiners, and rappelling without a backup.
(Source: Tacoma Mountain Rescue.)

Images



Rappel anchor that failed on Dewey Peak. An investigation concluded that the yellow cordelette around the block had been held in place by the carabiners linking the cord to a backup cam (not seen in photo). When the backup gear was removed, the cordelette slipped over the block as the last climber started down.

Article Details

Author	Tacoma Mountain Rescue
Publication	ANAM
Volume	11
Issue	72
Page	96
Copyright Date	2019
Article Type	Accident reports