



## AAC Publications

---

### Fall From Anchor — Tether Clipped Incorrectly

Canada, Alberta, Banff National Park, Mt. Louis

When Adam Laycock fell free of the fourth-pitch rappel anchor (intersection of orange and red lines) on the Gmoser Route on Mt. Louis, he miraculously stopped on a ledge 35 meters below (blue arrow), after tangling in the rappel ropes. Photo: Parks Canada

**At 5 a.m. on August 20, Alistair Hall (34) and I, Adam Laycock (33), started our approach to attempt the Gmoser Route of Mt. Louis. While this 15-pitch 5.9 has bolted anchors, it is also an old-school trad route that would push our limits for climbing on gear. Alistair was confident in his ability to lead the crux pitch.**

Although it was our first time on this mountain, we were both locals and familiar with the chossy nature of the Canadian Rockies. We did plenty of research and felt confident in the route and conditions that day.

Our ascent was slower than we had anticipated. By the time we reached the top of pitch six, it was midafternoon, and with ten pitches remaining, we decided to back off the climb. The belay stations were bolted, so we chose to descend the same way we had ascended. Rappelling pitches six and five was uneventful.

After I finished rappelling pitch five, I secured myself to the anchor with my personal anchor system (PAS). My PAS was a 120-mm nylon sling, girth-hitched through my belay loop, with two knots for length adjustment. The belay stance was narrow, prompting me to shorten my PAS by moving my locking carabiner to a knotted loop closer to my belay loop. I then clipped my carabiner into one of the rappel rings, locked it, weighted my PAS to test it, and took myself off rappel. I spent a few minutes preparing the rope for the next rappel, threading it through the rappel rings, coiling it, and adding a knot for safety.

Then I fell. I was not connected to the wall or rope, and there were four pitches of high-angle terrain beneath me. I tumbled for 35 meters, the full length of the 5.6 fourth pitch. I ultimately came to a halt on a sloping ledge. I was conscious.

I screamed, crying out for help from Alistair, who was above me, and the hikers below. Under my legs was one of our half ropes, in which I tied a figure 8 on a bight and clipped it to my belay loop. I yelled to Alistair that I was alive and secure, but injured, and there was no need to descend to me.

My left ankle was visibly disfigured and unable to support weight. Unable to self-rescue, I used my inReach to send an SOS message. Within half an hour of my fall, a Parks Canada rescue helicopter located us and began the rescue.

### ANALYSIS

Laycock's accident was eerily similar to another suffered by a National Outdoor Leadership School instructor in Arizona (see ANAC 2022). Both fallen climbers had tied overhand knots in a 120cm length loop of 20mm sewn webbing to create adjustment pockets for a homemade PAS. This is a common practice. In both cases, it appears that the tether was not clipped correctly with the carabiner, but instead the knot caught in the bottom, non-gated end of the tether carabiner.

A contributing factor to the accident was that Laycock's daisy knot was bulky from being unevenly tied. This increased the possibility of the knot sticking in the bottom of the carabiner.

He wrote, "Despite weighting my PAS to test it, the poorly dressed overhand knot briefly supported my weight." He added, "Before the knot slipped through the carabiner, I failed to thoroughly check my anchorage to account for human error."

It is worth noting that the critical section of webbing was hard to assess. The two strands that created the clipping pocket were of the same color and were flush with each other. Additionally, the rappel station was on a ledge, hampering a full weight test. In the end, sheer luck might have saved Laycock's life.

He wrote, "During my fall, I tangled in the rope, which was still being used by Alistair to rappel pitch five. This might have slowed my fall enough to stop me on the ledge. We had two 70m half ropes that hung 30 or 35 meters below the pitch-four anchor. When I hit the ledge, I was sitting on the tail of the rope, and I was still five to seven meters above the pitch-three anchor.

"Also, my helmet, though it ended up broken, allowed me to remain conscious. Had I been unconscious, I very well might have rolled off the narrow ledge. Considering what could have happened, my injuries were minor: a fractured left fibula requiring surgery, and numerous abrasions."  
(Sources: Adam Laycock, ANAC 2022, and the Editors.)

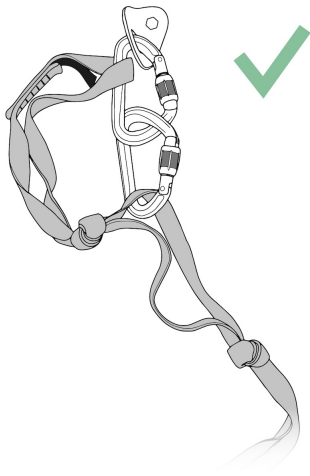
## Images



When Adam Laycock fell free of the fourth-pitch rappel anchor (intersection of orange and red lines) on the Gmoser Route on Mt. Louis, he miraculously stopped on a ledge 35 meters below (blue arrow), after tangling in the rappel ropes



Laycock's jammed knot accident was virtually identical to another in Arizona in 2021. In both cases (and in this re-creation), a tether carabiner of the same make and model had a bottom basket flat enough and shaped in such way as to allow a jammed knot to hold weight, if only for a few moments.



After suffering his near-fatal fall, Laycock wrote to ANAC: "To shorten my PAS at an anchor, I won't unclip the first (longest) loop anymore. I'll clip an additional locking carabiner in the shorter loop, then clip it to the first locker. Previously, and in the case of my accident, I completely unclipped from one loop and reclipped the closer knotted loop."

Article Details

Author	Adam Laycock, ANAC 2022 and The Editors
Publication	ANAM
Volume	13
Issue	77
Page	
Copyright Date	2024
Article Type	Accident reports