Avalanches – Poor Position, Failure to Heed Danger Signs

Utah, Santaquin Canyon

Shane and I (both in our 40s and experienced climbers) arrived at the base of the Squash Head ice route (WI 3/4) around 9:45 a.m. on February 2. We saw two climbers finishing the first pitch. The avalanche forecast for the day reported the hazard as “low” at the climb’s elevation and “moderate” at middle and upper elevations. Upon our arrival, it was encouraging to see the route not dripping and other climbers on it. However, the temperatures were already in the mid to upper 30s. Our climbing plan would have us down by noon.

As Shane led the first pitch, other climbers arrived. I followed Shane’s lead and was on the low-angle ramp above the first steep section when an avalanche funneled from the gully above the route. The slide passed Shane at the belay, then passed over me as I ducked behind an ice bulge. The four or five climbers at the base jumped away as one or two feet of snow piled up. After some “all safe” communication, I quickly finished the ramp to the anchor. The parties above us had evidently reached the top of the second pitch and exited via an alternate rappel toward the route Backoff. The parties at the base were mostly packing up to leave.

That first slide was at 11 a.m. I met Shane in the belay alcove on climber’s left, both of us full of adrenaline. Our discussion is hard to recall, but ultimately we made a nearly fatal decision to continue up the second pitch. In retrospect, that was the moment we lost control of the day’s outcome. There were four more avalanches to come.

Shane and I had climbed this route together seven years prior, and Shane had climbed it since. Before our earlier ascent, we had studied Google Earth and concluded the route was mostly protected from avalanche terrain by a ridge that runs diagonally above. In fact, the route is a funnel from avalanche slopes far up the mountain. During our short discussion at the belay, Shane and I concluded the slide had probably origi- nated as a wet sluff not far above the route. We figured the sluff had unloaded the gully and that another slide was unlikely. In our decision process, we ignored the real possibility that the avalanche had originated as a wet slide much higher up.

I led the second pitch. Near the top of the steeper ice, another small sluff passed. I was within view of the anchor and decided to place my final screw and scramble up the gully for 50 feet to the two-bolt anchor. There, I clipped in with my tether and set up Shane’s belay on an ATC Guide in autoblock mode. Shane was trailing the second rope we needed to rappel. With Shane ready to climb, I gave three tugs to signal “on belay.” At that moment, I felt a much stronger rumble than the previous slides. I looked up the gully and saw a very large avalanche turn into the gully 200 feet directly above me. There was nowhere to hide. I thought I was dead.

My belay was in the slide path, but to reach the anchor bolts the gully would need to fill 10 to 12 feet deep with snow before. After two screams of “avalanche,” fast- moving snow was upon me. Almost gently, I was lifted onto the surface of a river of snow. The gully finally stopped filling just one foot below the bolts. My body was hori- zontal, head uphill, held by my PAS tether. I rode on top of the snow river for about a minute, and then, as the snow receded, it set me down in the same stance I had occupied a minute earlier. The toe of this slide reached the logging road below the route.

Rattled but unhurt, I tugged on the rope to check on Shane. (We could not communicate verbally due to the terrain and distance.) I felt three tugs back, but it was quickly evident we could not

communicate an evacuation plan through rope tugs. Shane had weathered the slide in the first belay alcove, getting lightly pummeled by snow.

Shane climbed the second pitch quickly. He left most of the screws on the route and then clipped into the anchor chain. Over the next ten minutes, we were hit by a fourth and a fifth slide as we planned our escape and prepared the rappel. These were smaller but still jostled us both strongly. The fourth slide ripped Shane's trailing rope and ATC from gear loops on his harness.

We briefly considered finding a safe location and waiting for colder temps to stabilize the snow but worried about remaining exposed in this position. We also considered the nearby Backoff rappel and ruled it out because we mistakenly believed that rap required two ropes.

We decided to tie our 70-meter lead rope to our anchor and rappel down a single strand. Lacking a belay device, Shane rapped on a Munter. Soon we were both in the first-pitch alcove and relatively safe from danger. We were able to cut off a 50-foot tail of the lead rope, downclimb the low-angle ramp at the top of the first pitch (somewhat out of the slide path), and use a V-thread anchor to descend the final 30-foot curtain to the ground.

ANALYSIS

Our failures this day were related to poor knowledge of the route's avalanche danger and descent options, complacency due to a "low" avy forecast, and improper decision-making after the danger became evident. We let the excitement of climbing together after years and the good weather cloud our judgment. Lessons learned:

(1) Avalanche danger above ice climbs is often not visible.

(2) We failed to recognize the initial small wet slides as a precursor to larger, solar-triggered avalanches higher up the mountain.

(3) More conservative decision-making was needed after observations of local conditions contradicted the day's avalanche rating.

(4) We should have refreshed our route knowledge. Significant avalanche reports from Squash Head are available online that were not present when we first researched the route years earlier.

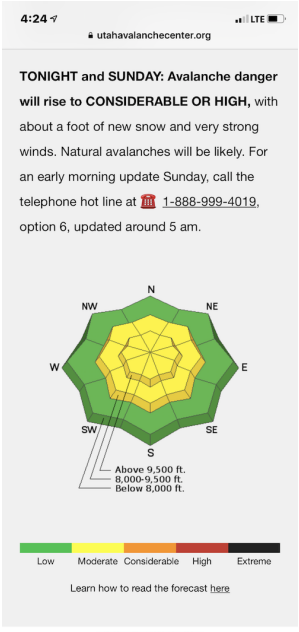
(5) We didn't adequately research descent options. We had a poor understanding of the alternate rappel that could have reduced our time in the avalanche zone.

(6) Personal radios could have reduced our exposure time by facilitating escape planning after the largest slide hit us, while we were still separated at two belays. (Source: Brian Crozier.)

EDITOR'S NOTE: Warmer winters and more frequent rain events may be increasing the avalanche hazard on many Utah ice climbs. About a year after this incident, in early March 2020, the Utah Avalanche Center reported another large wet-snow avalanche (containing significant log debris) on the Squash Head climb.

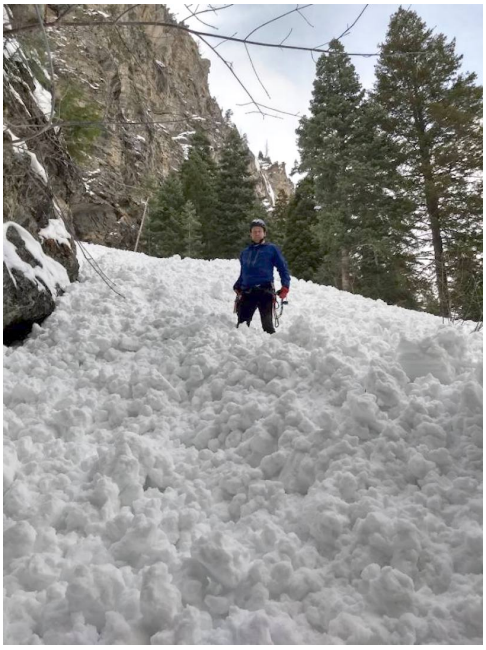
Images

The Squash Head ice climb, with a rope leading to the belay alcove atop the first pitch (center left).



Forecasted avalanche conditions for February 2, 2019, the day of this incident. The danger was rated "low" at the elevation of the climb but higher up the mountain.

Avalanche debris below the Squash Head ice route in Santaquin Canyon following the slides reported here.



Debris from multiple avalanches piled up below the Squash Head ice route in Santaquin Canyon.

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