



AAC Publications

Sidecountry Avalanche — Unaware of Forecast

Washington, Mt. Baker-Snoqualmie National Forest, Alpentel Valley

In the afternoon of Saturday, April 10, 2021, a group of three skiers loaded Chair 2 at Alpentel ski area to access terrain beyond the area boundary. They had been skiing inbounds in the Alpentel back bowls for a large part of the day. Upon reaching Piss Pass, the trio ascended on foot to the top of a small knob (5,440 feet) separating the Alpentel resort and the Pineapple Pass area. While the team discussed the intended route, they did not discuss that the line was in the backcountry, nor had anyone in the group checked the avalanche forecast for the area. Only some of the skiers carried avalanche rescue gear, and they had varying degrees of formal avalanche instruction.

Skier 1 led the group off the knob and toward a run known as 261. The group witnessed a lone snowboarder riding a line very close to their intended descent. Prior to entering the run, Skier 1 mentioned the possibility of wind slabs on the slope and the presence of a cliff below them and to the left.

At approximately 4:30 p.m., Skier 1 traveled onto a slope just to skier's left of 261 and triggered an avalanche. He yelled to his friends and pointed his skis downhill, skied directly over the cliff he had observed, and landed on the slopes below. While Skier 1 attempted to keep his airway clear, the avalanche immediately began to bury him.

Skiers 2 and 3 were above and out of the main start zone when the slide released. They quickly did a visual search of the terrain above the cliff and then descended a sparsely treed area to the north of the avalanche. Once they arrived below the cliff, they visually searched the debris field and found a ski pole on the surface and the tip of a ski sticking out of the snow just downhill.

Skier 3 began assembling his avalanche shovel and instructed Skier 2 to begin digging with his hands in the direction of the victim's head. They very quickly uncovered a hand that allowed them to locate and uncover Skier 1's face. He was attempting to yell, but his airway was clogged with snow. From the time the avalanche released to clearing the victim's airway was less than five minutes. Skier 1 was lying on his back, with his head approximately 18 inches below the surface. Despite the relatively shallow burial, he could not move nor extricate himself.

After uncovering their teammate, the group recognized the potential overhead hazard from additional avalanches and chose to move. Despite his injuries—the skier had two broken bones in his left shoulder and a torn ACL—he was able to slide down-valley to a flat area. At this point, skier 1's knee injury made further travel challenging.

No one in the team had cell service. Skier 3 left the group to descend to the ski area and seek help, while Skier 2 remained with the patient. Alpentel Patrol was notified at about 5:15 p.m. and responded to the scene. They were able to load Skier 1 into a sled and extricate him to the base of the ski resort.

ANALYSIS

In a forecast issued at 6:43 p.m. on April 9, the evening before this incident, the avalanche danger above and near treeline was rated Considerable on all aspects. The summary that evening read: "Another potent storm will impact Snoqualmie Pass, resulting in dangerous avalanche conditions on

Saturday. Unstable snow, recent human-triggered avalanches, and dynamic springtime weather should lead you to dial back your terrain choices and avoid slopes over 35 degrees.”

Alpentel Patrol and Northwest Avalanche Center (NWAC) staff visited the site the next day to complete an investigation. They found that a soft slab avalanche had begun on northwest-facing slope with a start zone averaging 40°. The crown was 10 to 12 inches deep, and the slide was about 150 feet wide and ran 350 vertical feet. In a pit, the investigators found that 10 to 12 inches of storm snow from the night before had slid on a thin layer of small facets. A storm the previous Wednesday night had delivered up to 16 inches of snow near Snoqualmie Pass, along with strong winds.

The NWAC forecast from the evening before this incident reported, “On Friday, multiple skier-triggered avalanches occurred at Snoqualmie Pass, including an involvement where a skier was caught and carried.” The report continued, “As we navigate our way through springtime weather, the transitions between dry and wet avalanche problems can be rapid and unpredictable, just like the weather. It can make decision-making and forecasting challenging, since you can’t bring your winter mindset or spring mind- set to the mountains to rely on for any given day.” (Source: Northwest Avalanche Center.)

Read the full report from the Northwest Avalanche Center.

RESORT ACCESS TO THE BACKCOUNTRY: Before skiers and riders leave a resort through a backcountry access gate, they need to flip a mental switch and acknowledge they are entering unpatrolled slopes with all the hazards of backcountry travel, requiring all appropriate training and rescue gear. Sidecountry skiing and riding (resort- accessed backcountry touring) accounted for about 10 percent of all U.S. avalanche fatalities over the last decade.

Images



A skier triggered a slide above this cliff band near Alpentel in Washington. He went over the rocks and was buried below. Two partners located the injured skier and dug him out.



Investigation of the April 10 avalanche.



Photo 4: Looking down the avalanche path towards the cliff.

Looking down the slide path at Alpental.

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