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# ACCIDENT

by BRIAN IRWIN



Approaching *Pinnacle Gully* (NEI 3+), a popular outing on Mount Washington, but a climb also well-known for avalanches.

At the base of the climb, Nadeau, 31, of Stratham, New Hampshire, encountered a pocket of “eight-inch-deep powder,” he says, “that released when I walked through it.” He ascended the crux first pitch, which led to a lower-angled upper gully, where he again encountered “powder covering the ice, a layer two feet thick.” Realizing that he was standing in a potentially unstable pocket, he attempted to move left toward a patch of ice from which he planned to thread an anchor and retreat. As he excavated snow with his left tool, he felt the snow beneath his feet slide. He witnessed a fracture line 40 feet above him release the slope. Caught in the slide, he was tossed down the first two pitches of *Pinnacle* and dropped into a debris cone. He fractured his femur, patella, wrist and hip.

## Slide Dumps Soloist

**O**n March 10, Michael Nadeau left Pinkham Notch intending to solo *Pinnacle Gully* (NEI 3+) a classic three-pitch climb in the center of Huntington Ravine, Mount Washington. Snow had begun to fall the night before and despite increasing precipitation, Nadeau found firm conditions.

Nadeau pulled out his cell phone and dialed 911 with his nose. Before dispatch could locate him via GPS his shouts for help were heard by a nearby skier, who responded and clarified their location. Within 45 minutes USFS Snow Rangers from nearby Tuckerman Ravine responded and initiated a rescue.

### ANALYSIS

**THE U.S. FOREST SERVICE POSTS AVALANCHE** conditions for Huntington Ravine on a daily basis during the winter. The previous day's forecast rated *Pinnacle* at Moderate; however, by the time Nadeau reached the outlet of the ravine he'd read that the forecast was raised to Considerable, which states: “Natural avalanches are possible and human-triggered avalanches are likely.” In the week prior, Mount Washington had received significant rain, which yielded an icy crust. By March 10 southerly winds of 40 to 50 mph were transporting low-density snow on top of this crust. Temperatures rose and the forecast was for more dense snow and perhaps rain.

*Pinnacle* is an east-facing climb that receives wind-loaded deposits of snow during storms, especially those with southerly or westerly winds. The presence of a debris cone and instability of the pocket at the base of the route were important pieces of data that flagged potential instability. Soft slabs deposited directly over rain crusts comprise two key ingredients for an avalanche: a bed layer and a slab. If bonding to the bed layer is poor, as it was in this case, weak layers and “sweet spots” can be very susceptible to triggers, such as plodding climbers.

### PREVENTION

**UNDERSTANDING AVALANCHES** is imperative for safe mountain travel. Some snow-safety points to remember:

▶ Winds of 40 to 50 mph are ideal for transporting and loading snow, so pay close attention to your slope's aspect and determine whether it might have been loaded.

▶ Look out for “bull's-eye” information like drifting snow, shooting cracks, unstable pockets and the presence of a previous rain crust. If you see any low on the route, they probably exist higher up as well.

▶ Pay attention to snow layers and forecasts. Heavy snow on top of light snow on top of a firm

crust is the classic “upside down” snowpack notorious for instability.

▶ While carrying a cell phone may save your life, don't rely on it too much. Coverage may be spotty or your hands might be broken from your fall. Consider other signal devices [see Field Tested, No. 191] and always make sure someone knows where you are and when you'll return.

▶ Realize that avalanches can occur anywhere there are the proper conditions. Don't be lulled into thinking small slopes can't be dangerous. Take an avalanche class if you play in the hills.

▶ Bring a beacon, carry probes and a shovel, and practice using them. Climb with a partner. ■

BRIAN POST