



AAC Publications

Avalanche – Late Start

California, Eastern Sierra, Independence Peak

Avalanche on Independence Peak. The approximate crown line and injured skier's location (X) after the slide are shown. The skier was carried about 1,000 vertical feet.

Two skiers, male and female, both in their late 20s or early 30s, set out around 9:30 a.m. on April 29 to ski a prominent canyon on the northeast side of Independence Peak, near the Kearsarge Pass trailhead. After skinning up the chute for about 1.5 hours and gaining a couple of thousand feet, they stopped at about 11 a.m. on the edge of the gully to transition from skinning to booting. While they both had their packs off, they heard and then saw an “explosive fast-moving” avalanche release approximately 300 to 500 feet above them. With no time to react, both were caught up in the moving snow. The male was able to grab some rocks until the moving snow passed, but the female was carried out of sight down the canyon.

The male subject, now missing his skis and backpack, was able to move down the canyon and eventually found his partner (and half of a ski) on the skier's left edge of the debris, unburied but with rib and lower back injuries severe enough that she was unable to continue out. The avalanche had carried her approximately 1,000 feet.

The Inyo County Search and Rescue team was deployed along with resources from the California Highway Patrol (including CHP helicopter H40), Inyo County Sheriff, and CAL FIRE. The total response included over 40 personnel. Upon arrival of the SAR team, the snow safety officer and other team members evaluated conditions and concluded that the area continued to have high avalanche danger. The SAR team and CHP determined that a helicopter hoist offered the fastest and safest means of extricating the injured subject. The patient was subsequently evacuated by the helicopter and taken to Southern Inyo County Hospital.

ANALYSIS

The avalanche started in steep, northeast-facing terrain at around 10,800 feet, presumably as a loose snow slide. At around 10,400 feet, a large wet slab avalanche released on a deeper weak layer with an estimated two- to four-foot crown. The total slide length was about 2,500 feet. Rapidly warming temperatures, partly cloudy skies, and a weak overnight refreeze of the snowpack were all likely contributing factors. The nearest remote weather sensor (Charlotte Lake, 10,400 feet) recorded a low of 35°F at 4 a.m., rising to 56°F at 11 a.m.

The party estimated that ski penetration while they were skinning (mostly in the shady side of the chute) was no more than two inches, but on the sunny side it appeared to be softening more. They overestimated the surface refreeze, which they had felt was deeper. They both had transceivers on, but the rescue equipment in their packs was swept away by the slide, as they were in the middle of transitioning. The skiers had five and 12 years of backcountry experience, no formal avalanche education, but quite a bit of informal education from experienced partners.

With warm temperatures the snowpack is unstable, especially in the heat of the day. It is common practice among ski tourers to begin the day with an alpine start—getting up well before daylight and turning around as soon as the snow starts to soften. Both subjects are lucky to have survived this incident. (Sources: Inyo County Search and Rescue and Eastern Sierra Avalanche Center.)

Images



Avalanche on Independence Peak. The approximate crown line and injured skier's location (X) after the slide are shown. The skier was carried about 1,000 vertical feet.

Article Details

Author	Inyo County Search and Rescue and Eastern Sierra Avalanche Center
Publication	ANAM
Volume	12
Issue	74
Page	33
Copyright Date	2021
Article Type	Climbs and expeditions