It was a good powder-ski day; weather conditions were perfect: lots of recent snow, sunny skies, cold temperatures and light winds. On the ridge the skiers hurried to remove and pack away their climbing skins. The plan was to ski one-at-a-time the north to northeast-facing slopes into Dutch Draw. Tom Banks, 28, started down first.

Friends on top of the ridge watched Banks push off and then carve perfect telemark turns in the fresh powder. After only a few turns the slope steepened and Banks disappeared from view. The mood was upbeat while the others waited for their turn, but at the same time no one realized Banks's misfortune.

Almost immediately after skiing out of view from his friends, Banks triggered a soft-slab avalanche. Even as the snow fractured around him and started to move, Banks was able to make several more turns before getting knocked off his feet. Banks remembered being completed under the moving snow and headed toward thick timber. Only when the snow stopped did he surface, hanging onto a tree and buried waist deep.

No one had witnessed the avalanche, and it was probably the second person to ski down that discovered the avalanche and found Banks stuck in the debris in a thick stand of timber. Banks was freed by his ski partners. He suffered a few bumps and bruises and a sore leg, but otherwise he was in good condition. The same could not be said for his skis. One was lost and the other was broken.

Avalanche Data

The avalanche was classified as an SS-AS-3-O. The fracture was 22 inches deep and 180 feet across. The slab released at an elevation of 9,800 feet on an open slope that faced north-northeast. The slide traveled 500 vertical feet. At the top of the slope, before Banks disappeared from view, the slope angle was about 30°. However, where the convex slope steepened, and where he triggered the slide the slope steepened to 38°.

A fracture-line profile dug the following day showed there was about 43 inches of snow on the ground. Below the bed surface the remaining snow was sintered and well bonded. The weak layer was a thin layer of surface hoar crystals. The crystals measured 3–8 mm and formed during a week's worth of cold, dry conditions before the Thanksgiving holiday. The slab consisted of three storm layers of snow that were just starting to consolidate and bond to each other, but not to the surface-hoar layer.

Comments

Banks's close encounter was a good learning experience for the group, even for such experienced and well-equipped backcountry skiers. Everyone was prepared for an avalanche emergency; they all carried beacons and shovels and several even had probes. But in their decision-making process they were not quite so prepared and triggered an avalanche. Afterwards, the group met and identified what they would do differently next time. They recognized their most serious error was that they failed to re-evaluate the snow conditions as slope aspects and slope angles changed. They all felt that they needed to dig more hasty snow pits to help their evaluations. On the day of the accident no pits were dug. Had snow pits been dug, the group would have found the weak surface hoar layer. And lastly, they learned the importance of keeping all members of the group in sight at all times. After their own critique, they all no doubt became wiser and safer backcountry skiers.

84-17 DECEMBER 11, 1984

Teton Pass, Wyoming

1 backcountry skier caught

Accident Summary

On a stormy December morning, three experienced skiers and mountaineers, Jack Levan, Tom Bennett, and Bill Gill, headed to the summit of Teton Pass about 10 miles west of the town of Jackson for powder skiing. For a savvy bunch of mountaineers the men were in their element: they enjoyed being out in a winter storm. Though strong winds and snow produced near whiteout conditions, the trees offered just enough contrast and depth perception for good, but difficult skiing. Venturing into the midst of a storm, the men did not want to fall prey to an avalanche, so they came loaded for bear. They carried avalanche rescue beacons, shovels, collapsible probe poles and even some snowpack analysis equipment.