Northern Bridger Range; south of Frazier Basin
3 skiers triggered, caught and partially buried; 2 injured
Gallatin National Forest, Bozeman, Montana
October 28, 2012

SYNOPSIS

On Sunday, October 28, three male skiers in the northern Bridger Range were ascending a south-facing slope immediately south of Frazier Basin when they triggered an avalanche. All three were partially buried. Two were injured. The avalanche was estimated to be three feet deep, 100 feet wide and ran approximately 600 feet vertical. US classification is SS-AS-U, R2, D2.

Photos:
http://www.mtavalanche.com/images/12/avalanche-no-name-bowl-overview
http://www.mtavalanche.com/images/12/no-name-bowl-avalanche-path

LOCATION

45°55'05.65" N
110°58'56.78" W
Crown line approximately 9,000 feet elevation.

WEATHER

During the time of the accident the temperature at the Sacajewea SNOTEL site, two miles from the avalanche, measured 44°F. Winds were gusty all day under cloudy skies. Snowfall in the past week deposited 18-24" of 10-12% density snow (estimated) above 8,000 feet with strong westerly winds.

AVALANCHE

At 9 a.m. one skier (A), aged 53, parked his vehicle low on Fairy Lake road and started skinning up with the intention of taking a tour, but his plans soon changed. Two other skiers (B) and (C), aged 37 and 35, picked skier (A) up in a 4WD and all three drove to the trailhead. Skier (A) did not know the other two. All were advanced backcountry skiers with avalanche training. After discussing their options, they decided to stick together and ski a bowl familiar to skier (A). The supportable 18" of snow on the approach caused them to anticipate good turns on the south-facing slope. The thin snowpack did not reveal any weakness with ski pole probing and they saw no signs of instability.

The avalanche was triggered near the ridgeline as they skinned uphill. Skier (A), in the lead, felt the slope collapse with a "whumph" and saw the slope fracture 80 feet above him. Skier (A) yelled "Slide!" to alert the group. A minute earlier skier (B) pulled out his Avalung mouthpiece as a precaution, but failed to get it in his mouth when the slide occurred. The avalanche swept all three to the bottom, beating them up on the rocky bed surface beneath the thin snowpack.

When the avalanche stopped they were within 20 feet of each other. Skier (A) had one arm and half his torso sticking out of the snow and was able to dig himself out and release his telemark skis which were on his feet. He then went to skier (B) and skier(C) who were immobilized by the debris. Skier (B) also had

telemark skis still on his feet and was buried to his armpits. Skier (C) was almost completely buried but a free hand dug away a thin covering of snow from his face, allowing him to breathe. Luckily, (A) was able to dig the other two out since they were stuck. Poles were lost in the slide, but skier (C)'s skis were found in the debris along with (A)'s helmet which was unsecured and tossed off his head. After giving themselves a secondary survey, it was found that (A) suffered a deep knee laceration and hip injury, (B) had an arm laceration and (C) was badly bruised.

SNOWPACK

The south-facing slope that avalanched was wind-loaded. The specific weak layer that failed and avalanched is unknown. However, we deduced that recent wind-loading was a major factor in creating instability. Slope angles were not measured but estimated to be 35-40 degrees at the trigger point and crown. As I skied in for the rescue I too noted the stable, solid feel of the snowpack. I saw no avalanches in the range during the helicopter flight in, although we did get a report of a skier purposely triggering a small wind pillow near Ross Pass on Friday, October 26. Steady rain the next day (October 29) prevented us from doing a crown profile and field investigation.

RESCUE

At noon the party notified Gallatin County Search and Rescue (GCSAR) by cell phone. Skier (A) needed to be evacuated. GCSAR and Summit Air attempted to land myself and another rescuer near the injured party, but gusty winds prevented this. The helicopter dropped us off 1.5 miles from the accident site where we met more rescuers. Ten rescuers skied and walked in to extricate (A) by toboggan and assist (B) and (C) who were banged up. By 3:45 p.m. all parties were back at the trailhead on the Fairy Lake Road. The patient was diagnosed at the hospital with a pelvic fracture (iliac wing).

LESSONS LEARNED

All three skiers were forthcoming with details leading up to the avalanche. Accidents are rarely caused by one mistake and are usually the result of many small decisions cascading into a bad situation. They outlined the following lessons they learned from this incident:

1. As they ascended they should have been spaced further apart on the slope. Then, when the avalanche hit, only one person would be exposed instead of all three.
2. They needed to communicate with each other better. They all made assumptions as they ascended into the bowl and up the slope. Skiing with new partners requires an extra effort to communicate to share ideas and concerns.
3. Paying attention to small details can make a big difference. For example, a helmet strapped on securely can prevent a head injury; skier (A) made a mental note that his bindings were extra tight and may not come off in an avalanche.
4. The action of deploying an Avalung is a conscious effort in which skier (B) recognized the increasing chances of avalanches. Yet this awareness was not followed by the next step of changing behavior (talking about it or spreading out).

This report was compiled by interviewing all three skiers at the scene and also on the phone. For more information please contact the Gallatin National Forest Avalanche Center at 406-587-6984 or mtavalanche@gmail.com

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