



AAC Publications

Avalanche

Canada, British Columbia, Glacier National Park, Sifton Col

Around 2 p.m. on March 24, a party of three began a ski descent of the southwest slope below Sifton Col. It was a mild, clear day with light winds. Two members of the group remained at the top of the slope, while one skied down to assess conditions. The skier triggered a size 2.5 slab avalanche near the middle of the slope and was knocked over and carried down the slope. He was buried under approximately one and a half meters of debris in a natural terrain trap.

The two remaining party members performed a companion rescue and uncovered their unresponsive partner. The patient was moved to a safer location, less affected by possible additional avalanches, and CPR was initiated immediately. One person stayed on scene and continued CPR while the second person skied back to the Rogers Pass Discovery Centre to report the incident.

Parks Canada Visitor Safety Specialists received the report of the incident at 3:25 p.m. The avalanche hazard was assessed, and it was deemed safe to land next to the toe of the avalanche deposit. Two rescue specialists continued CPR with an automated external defibrillator (AED), while a third rescuer remained on lookout for further avalanches. With no signs of life coming from the victim, CPR was discontinued and all personnel were evacuated from the accident scene.

Analysis

The avalanche was likely triggered at a thin spot on a scoured, south-facing alpine slope. After the avalanche, exposed rocks were present on the bed surface. These would not have been visible prior to the event. Shallow, weak spots in the snowpack around rocks are common trigger points for avalanches. The avalanche was triggered on a persistent weak layer consisting of surface-hoar crystals on top of a strong, thick crust. This weak layer, combined with direct solar warming of the surface snow, contributed to the size of the slab that released.

The avalanche released well above the trigger point, and the victim was carried into a depression where the debris piled up. Terrain traps like this depression need to be evaluated carefully, as they increase the consequences of even small avalanches.

The group made a good decision to put only one member on the slope to assess the conditions and have spotters in safe locations. During the ensuing rescue, the two party members showed great foresight by moving the victim to a location less exposed to surrounding avalanche terrain. Rescuer safety is a top priority in every rescue.

Editor's note: The website of the Canadian Avalanche Centre has published a series of very instructive and entertaining online exercises for practicing route selection in avalanche terrain. Find them here: <http://www.avalanche.ca/cac/training/online-course/reducing-risk/route-finding-exercises>.

Images

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