

MOUNT TWO TOP AVALANCHE ACCIDENT

Activity

Snowmobiling

Date

2/10/2009

3 snowmobilers caught / 1 killed

Synopsis

SYNOPSIS:

A group of six snowmobilers from Yakima, WA was riding on Mount Two Top near the town of West Yellowstone when one of the riders triggered an avalanche. He was caught, buried, and seriously injured. The avalanche released on a northeast facing, wind loaded slope. The average slope angle ranged from 26 to 30 degrees but was 43 degrees just under the cornice. The avalanche was estimated to be 100 ft wide by 150 ft vertical and the slope distance was 350 ft. US Classification of the avalanche is SS-AM-R1-D2-I.

Elevation: 8200 ft, Aspect: 56 degrees NE, Average slope angle: 26-30 degrees

Alpha angle at toe of debris: 25 degrees

PHOTOS:

<http://www.mtavalanche.com/photo>

VIDEO CLIP:

<http://www.youtube.com/watch?v=DkuLXIshq94>

WEATHER:

Wind data are taken from a weather station operated and maintained by the Gallatin National Forest Avalanche Center approximately 7 miles northwest at an elevation of 8243 ft. Snowfall data are taken from the Madison Plateau Snotel Site at an elevation of 7750 ft.

During the previous 24 hours approximately 0.2 in of snow water equivalent fell and winds blew 7-14 mph with gust of 11-22 mph from the south and southwest. These winds readily transported snow and deposited it on the

slope that slid. During the investigation on January 12, winds had deposited more snow and the crown of the avalanche was no longer visible.

AVALANCHE:

This information was gathered by talking with Tim Campbell from the Hebgen Lake Ranger District who was on scene during the rescue.

The victim was riding with 5 others. All six were carrying appropriate avalanche rescue gear. At approximately 1200 the victim and another member of the group were riding on the slope at the same time. As the victim was near the apex of his path, the slope fractured and he was carried approximately 100 ft downhill. He impacted several trees and was buried with only his hand exposed. The other rider was on the same slope but on the edge of the avalanche. Members of the party began an immediately rescue. They were unable to detect a signal from the victim's beacon, but they saw his hand sticking out of the snow. They dug him out. He was breathing but seriously injured. They moved him further down the slope fearing additional avalanche hazard.

SEARCH AND RESCUE:

Search and Rescue from West Yellowstone was notified of the avalanche and arrived at approximately 1300 with a rescue sled. Because the victim had been moved down slope by his partners, the rescue sled was able to be parked very close to the victim. He was transported and transferred to an ambulance by 1530.

SNOWPACK:

Doug Chabot and Mark Staples investigated the avalanche with Ron Naber and Tim Campbell. A layer of surface hoar crystals about 4-6 mm in size was found 38 cm (15 in) deep under a 4 fingers hardness slab and on top of 1 finger hardness snow. Near the flank of the avalanche, this layer easily fractured in stability tests (CT 11/12 Q1) and was evident as a noticeable stripe through the snow pit wall.

This avalanche occurred in the Targhee National Forest in Idaho approximately 0.4 miles outside the advisory area; however, this area has a very similar snowpack to the portion of the advisory area near West Yellowstone.

Please contact me for more information or if you have any questions. I can be reached at 406-587-6984 or mstaples@fs.fed.us

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