

Reas Peak Avalanche Fatality

1 snow biker caught, fully buried and killed

Centennial Range, ID

Caribou-Targhee National Forest – January 20, 2018

SYNOPSIS

On the afternoon of Saturday, January 20, four snow bikers (motorized) were riding southeast of Reas Peak (9,298') in the Centennial Range in Idaho. The group was riding along a trail near a creek bed below 500-700' high slopes that were greater than 35 degrees steepness. Two bikers rode up 15' from the bottom of the slope when it released, catching and burying one. The group had rescue gear and located the victim quickly. The victim's head was 6' from the surface and CPR was initiated but unsuccessful. The avalanche was estimated to be 600' wide, up to 2.5' deep, and 2-300' slope distance. It is classified SS-AMu-R2-D2-O.

GPS coordinates:

Victim burial location: 44.42344 N, 111.49849 W

Photos:

<https://www.mtavalanche.com/images/18/reas-peak-avalanche-burial>

<https://www.mtavalanche.com/images/18/reas-peak-avalanche-crown>

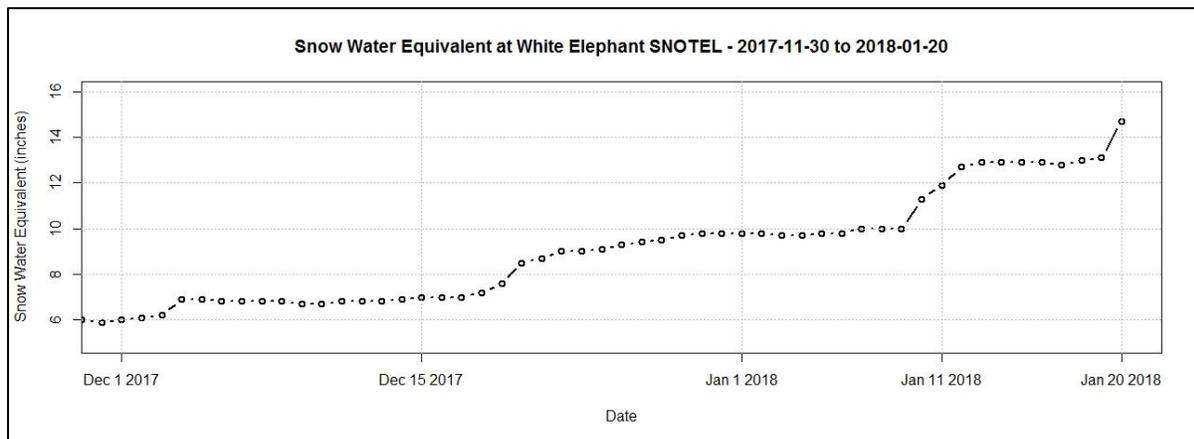
<https://www.mtavalanche.com/images/18/reas-peak-avalanche-terrain-trap>

<https://www.mtavalanche.com/images/18/reas-peak-avalanche-crowline>

<https://www.mtavalanche.com/images/18/google-earth-location>

WEATHER

Snow depth and precipitation data are from the White Elephant SNOTEL site located at 7,710', approximately 4 miles east of the avalanche site. Wind speed and direction data are from the Lionhead weather station at 8,775', approximately 15 miles northeast of the avalanche site.

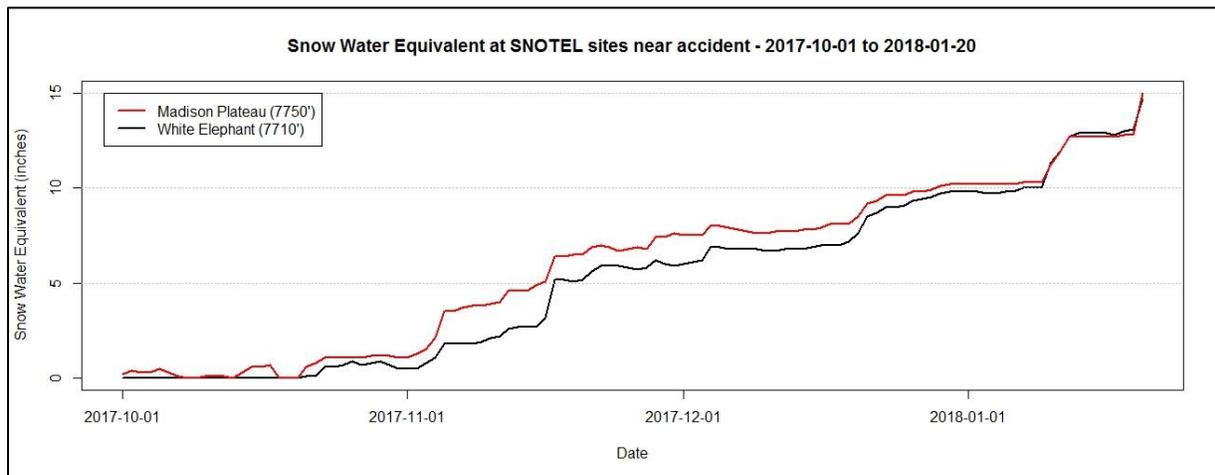


On December 1 the White Elephant SNOTEL had a snow depth of 22" equal to 6" of snow water equivalent (SWE). On December 2 and 3 the station got 8" of snow equal to .8" of SWE. A mostly dry period through December 18 was followed by 1.5" of SWE on December 19 and 20. Steady, light snowfall for ten days added 2.8" SWE to bring total depth to 40" equal to 9.8" SWE on December 30. Through January 8 the station received a couple inches of snow, then from January 9 to 12 the station got 22" of snow equal to 2.9" SWE. On January 19, the day prior to this accident, the station got 12" of snow equal to 1.6" SWE.

At start of snowfall the morning of January 19, wind at the Lionhead weather station was west-southwest at 15-25 mph with gusts of 40-50 mph. During the 24 hours prior to the accident, wind was west-north at 1-5 mph with gusts of 5-12 mph. At 0700 the day of the accident temperatures were 14 F at White Elephant and 9 F at Lionhead, and by 1400 reached 22 F and 21 F, respectively.

SNOWPACK

The avalanche occurred near Reas Peak in the Centennial Range on the border of Montana and Idaho. There is no public avalanche advisory or public backcountry weather and snowpack information for this area. The Gallatin National Forest Avalanche Center (GNFAC) issues daily avalanche and mountain weather advisories for The Lionhead area near West Yellowstone, 15 miles east-northeast of the accident. The snowpack in the Centennial Range is often similar to the Lionhead area, so data used for avalanche conditions at Lionhead are used here to assess avalanche conditions in the Centennial Range the day of the incident. The graph below of SWE at the Madison Plateau SNOTEL station near Lionhead and the White Elephant station near Reas Peak shows a similar pattern of snowfall at the two areas this winter.



Fremont Rescue SAR members estimated the avalanche to be 600' wide, up to 2.5' deep and ran 2-300' slope distance. The slope angle is estimated to be 35° or steeper based on photographs and maps. The slope was west facing at an elevation of 7,750' and the debris piled into a terrain trap formed by the steep transition of the creek bed.

The avalanche was a soft slab of recent snow that likely collapsed on sugary, weak facets underneath. It is classified SS-AMu-R2-D2-O. A relatively shallow snowpack became faceted and weak during cold, dry weather the first half of December. Warm temperatures on Thanksgiving created a crust 1-2' above the ground and weak, sugary facets formed below and above the crust. Steady, light snowfall from December 18 to December 30 formed a slab above the weak snowpack and created unstable conditions. On December 30, the GNFAC issued an avalanche warning for the Lionhead area near West Yellowstone, meaning avalanche danger was rated high on all slopes. On that day, a snowmobiler triggered, was caught and buried in an avalanche on Mt. Jefferson, one and a half miles from the Reas Peak accident site.

On January 10, the GNFAC issued another Avalanche Warning for the Lionhead area after the mountains received 1.9" of SWE in 24 hours on top of a very unstable snowpack. Prior to this new snow, cracking and collapsing of the snowpack were observed in addition to unstable stability test results and large natural avalanches. On this day a snowmobiler died on a slope approximately 2 miles northwest of the January 20 avalanche.

On January 19 a snowmobiler was caught in a slide on Lionhead and on the morning of January 20, the GNFAC issued another Avalanche Warning (link below) when over a foot of snow (1.6" SWE) fell accompanied by strong winds. This avalanche warning was also spread in the news throughout Island Park and Idaho Falls by the Fremont County SAR. On this same day, avalanche specialist Alex Marienthal visited the Lionhead area to assess the snow stability. He found weak and unstable condition which are documented below in his video and snowpit.

There was no official investigation or crown profile data collected at the accident site.

GNFAC Avalanche Advisory for January 20, 2018: <https://www.mtavalanche.com/advisory/18/01/20>

Video from Lionhead, January 20, 2018: <https://youtu.be/y8O0iWplhS0>

Snowpit from Lionhead, January 20, 2018: <https://www.mtavalanche.com/images/18/lionhead-profile-20-jan>

AVALANCHE

On the afternoon of January 20, a group of four snow bikers (2 from Canada and 2 from Missoula, Montana) were riding southeast of Reas Peak in the Centennial Range. The Centennial Range is an east to west running crest of peaks on the border of Idaho and the southwest corner of Montana. The avalanche was on the southern side of the range in Idaho, 10 miles northwest of Island Park and 30 miles west of West Yellowstone, MT.

The group left the Blue Creek Trailhead and made their way 5 miles up a single track towards Reas Peak. At approximately 2 p.m. two riders climbed 15' above the track onto a west-facing slope and triggered an avalanche that caught and buried one rider (male, age 46). All four riders had an avalanche transceiver, shovel and probe. The victim had an avalanche airbag, but it was not deployed. His partners located him quickly with an avalanche transceiver and probe pole and dug him out. The rider was buried

with his head 6' from the surface. CPR was initiated and soon after the party called 911 who then alerted Fremont County Search and Rescue at 2:45 p.m.

RESCUE

After receiving the 911 call at 2:45 p.m., five Fremont Country SAR members, including one paramedic and one EMT, snowmobiled into the accident site. Additionally, a medivac helicopter from Air Idaho Rescue was launched from Idaho Falls. It landed approximately 1/8 mile from the site and medical staff walked to the victim carrying an automated external defibrillator (AED). They were unable to detect a shockable rhythm and declared him dead. Another group from Fremont SAR arrived with a toboggan and they snowmobiled his body out to the trailhead.

INVESTIGATION

This report was compiled by Doug Chabot and Alex Marienthal of the Gallatin National Forest Avalanche Center. Information from the avalanche site was gathered through phone interviews with Randy Gravatt from Fremont County SAR, who went to the site for the rescue.

Any questions should be directed to:

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