

Saddle Peak Avalanche Fatality

1 skier caught, partially buried and killed

Bridger Range, MT

Custer Gallatin National Forest -- April 14th, 2018

SYNOPSIS

On Saturday, April 14th at approximately 10:30 a.m., a solo skier exited the south boundary of Bridger Bowl Ski Area and hiked to the north summit of Saddle Peak (9100'). Around 10:50 a.m. he dropped off the summit to the east and triggered an avalanche which caught and carried him 1500' vertical down a steep, narrow, common avalanche path. He was buried at the toe of the debris. A person on Schlashman's Chairlift (one mile north of Saddle Peak) watched the skier get swept out of view after triggering the slide. The witness alerted the ski patrol at the top of the lift who then notified Gallatin County Search and Rescue (GCSAR) before talking to three individuals returning from Saddle Peak and confirming the skier was missing. Three ski patrollers responded as volunteers for GCSAR, picked up the buried skier's beacon signal and as they got close saw a gloved hand at the snow surface. His head was 1 ½ feet below the surface and there were no signs of life. He was buried for approximately 75-minutes. The victim had an avalanche transceiver, shovel and probe, but no partner. The avalanche is classified as SS-ASu-R3-D2-I.

GPS coordinates and elevation:

Crown: 45.79321N, 110.93537W, elevation 9019'

Victim Location: 45.79186N, 110.92680W, elevation 7523'

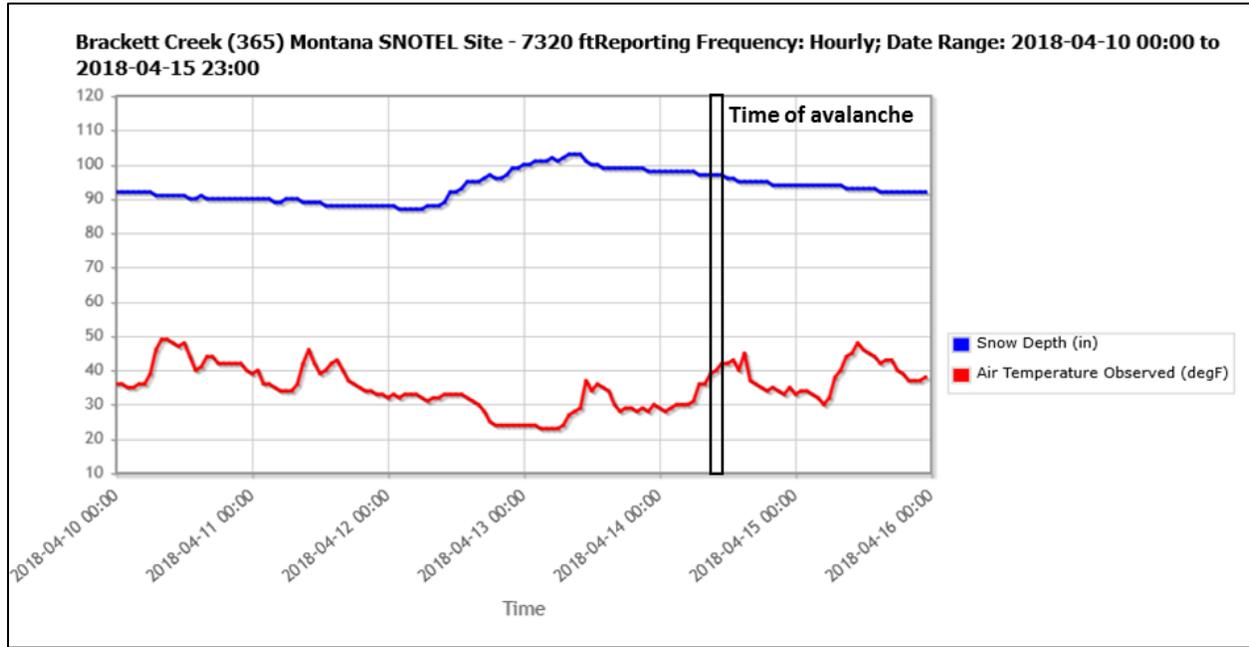
Photos and video links are in the Appendix.

WEATHER

Snowfall data was collected 1.5 miles north of the accident site at the top of the Bridger lift (8100') and from Bracket Creek SNOTEL (7320') located 2.5 miles north. Wind and temperature data were collected one mile north at Tower 7 on Schlashman's lift (7950'). Additional wind data was collected from Flanders Peak weather station (9982') 24 miles south of the accident site.

Between Wednesday, April 11th and Friday, April 13th a significant storm impacted the Bridger Range. Bridger Bowl Ski Patrol recorded 39" of new snow Friday morning totaling 4.8" of SWE (snow water equivalent). A brief rain at the onset of the storm on Wednesday produced a thin ice crust covered with new snow. During the storm temperatures dropped to 20 F and winds blew 15-30 mph out of the west-southwest. Snow tapered off Friday and little snow was recorded Friday night or Saturday.

On Friday, winds blew 15-30 mph out of the west-southwest. Early Saturday morning a gust of 37 mph was recorded at the Flanders weather station while Tower 7 recorded gusts of 32 mph. During the time of the accident (approximately 10:50 a.m. Saturday), winds were blowing 10-25 mph out of the west-southwest and temperatures were in the high 20s F. At 2:00 p.m., during the investigation at the crown, the temperature was measured 30 F.



AVALANCHE AND RESCUE

The skier (male, 39) was a long time local and very familiar with the terrain south of Bridger Bowl Ski Area. On Saturday, April 14th he was the first person to exit into the backcountry from the south boundary of Bridger Bowl. He was wearing an avalanche transceiver and had a shovel and probe in his pack. He was by himself and hiked to the north summit of Saddle Peak (9100'). Saddle Peak is exposed and complex alpine terrain. The skier descended a couple hundred feet down a lower-angled ridge which rolled over to 37 degrees where he triggered the avalanche, which broke on a wind-loaded slope 1-3' deep and 100' wide, running 1500' vertical down a path locals call "North Central." The avalanche failed on a thin rain crust under the new windblown snow. The skier was carried to the toe of avalanche debris down a steep and narrow avalanche path. He came to a rest in an upright position with his arm extended above his head and gloved hand at the snow surface.

A person riding Schlashman's Chairlift (one mile north of Saddle Peak) saw the skier trigger and get caught by the slide. The skier went out of view and the person on the chair could not determine if the skier escaped the avalanche. He informed ski patrol at the top of the lift who then called GCSAR. As members of GCSAR the patrollers began mobilizing for a rescue and talked to three other people who

skied off the summit of Saddle Peak, but none had seen the missing skier. Included in these three were two snowboarders who saw the crown but did not know it was triggered by the skier ahead of them.

At 11:41 a.m. three members of the Bridger Bowl Ski Patrol descend one at a time off the summit of Saddle Peak in search of the missing skier. They skied down the avalanche path and at 11:50 a.m. a rescuer gets an initial signal at "50 m" on his avalanche transceiver. One minute later, at "2.4 m", the rescuer sees a gloved hand at the snow surface among the small debris chunks. Two minutes later the victim's face was uncovered 1.5' from the surface and at 12:05 p.m. he was fully uncovered. The victim was buried for 75-minutes and showed no sign of life.

Separately, three members of GCSAR and a search dog flew towards the scene in a helicopter while additional resources drove to Bridger Bowl. While the helicopter was in the air the victim was located and rescuers announce that no further manpower was needed.

The helicopter landed at Bridger Bowl and a long-line was set up to pick up the victim. At approximately 1 p.m. the victim was long-lined from the scene and transported to an ambulance.

SNOWPACK

Between Wednesday, April 11th and Friday, April 13th, the Bridger Range received over three feet of snow totaling 4.8" of SWE. The new snow was deposited on a thin rain crust that formed during the onset of the storm. The avalanche danger was rated HIGH on all slopes and an Avalanche Warning was issued for the Bridger Range on Friday, April 13th. The slope that avalanched on Saturday was additionally loaded by moderate to strong winds out of west-southwest. The dry snow, soft-slab avalanche only involved new and wind-blown snow. The slide did not step down to deeper layers. Outside of new snow instabilities, the snowpack was strong and stable.

Avalanche Advisory: <https://www.mtavalanche.com/advisory/18/04/14>

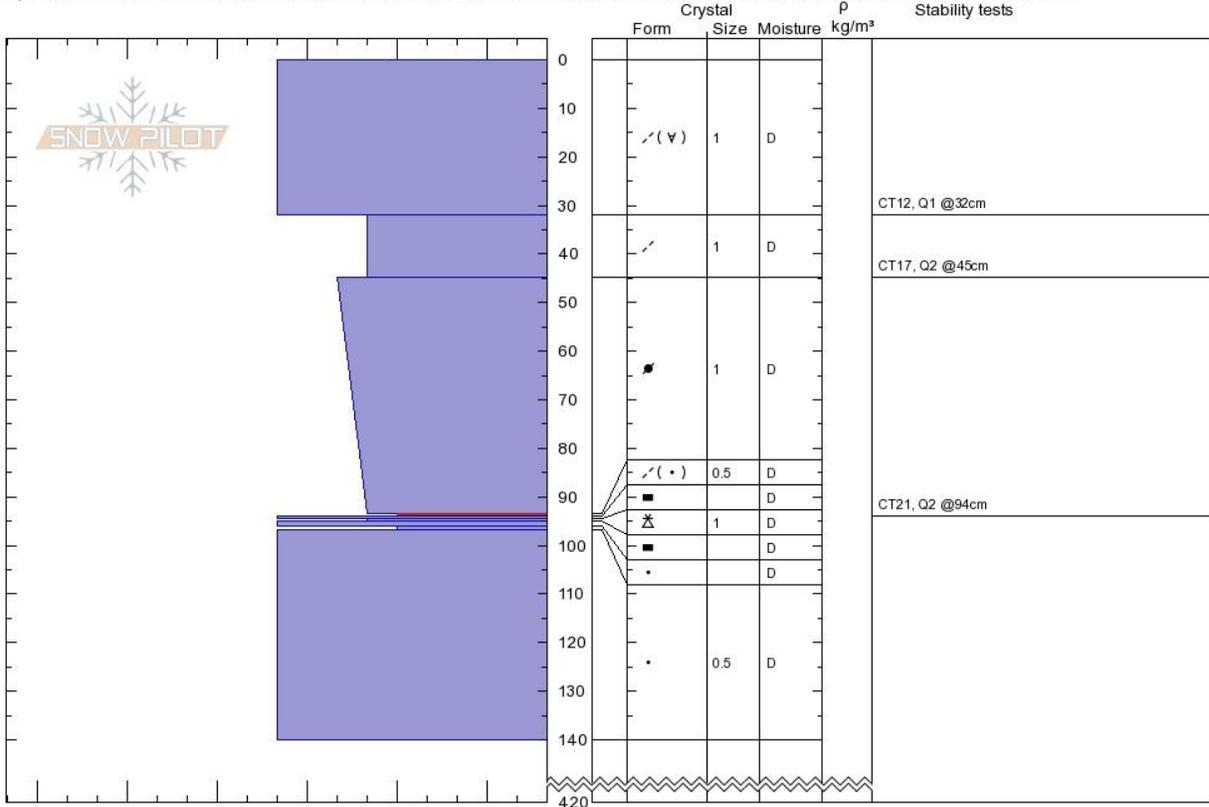
Snowpit Profile: <https://www.mtavalanche.com/images/18/saddle-peak-avalanche-fatality>

Saddle Peak Avalanche Doug Chabot-Admin
Bridger Range Sat Apr 14 14:00 2018
MT Co-ord: 45.79321N, -110.93537W
 Elevation: 9019 ft Slope Angle: 37°
 Aspect: 94° Wind Loading: previous

Stability: **Poor** HS420
 Air Temperature: -1°C Stability Test Notes
 Sky Cover: **BKN**
 Precipitation: **NO**
 Wind: **W Moderate**

Layer Notes
 94-93.5: **Problematic layer**
 94.5-94: **bed surface**

Specifics: Pit is adjacent to avalanche: crown; Recent activity on similar slopes; Ski tracks on slope



Notes: This avalanche killed a solo skier late morning today. SS-ASu-R3-D2-1

INVESTIGATION

The onsite investigation occurred immediately after the recovery operation. Doug Chabot was accompanied by Pete Maleski, Bridger Bowl Snow Safety and GCSAR member. Bridger Bowl was radio dispatch and kept detailed time logs of the rescue. Interviews with the rescuers and other Bridger Bowl patrol provided many details in this report.

Any questions should be directed to:

Doug Chabot
 Director
 Gallatin National Forest Avalanche Center
 406-587-6984
dchabot@fs.fed.us

Eric Knoff
 Avalanche Specialist
 Gallatin National Forest Avalanche Center
 406-587-6984
eknoff@fs.fed.us

APPENDIX

All Photos:

<https://www.mtavalanche.com/images/18/saddle-crown>

<https://www.mtavalanche.com/images/18/saddle-peak-crown-air>

<https://www.mtavalanche.com/images/18/saddle-peak-path-air>

<https://www.mtavalanche.com/images/18/saddle-peak-full-path-bottom>

<https://www.mtavalanche.com/images/18/saddle-peak-path-crowncloseup>

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

<https://www.mtavalanche.com/images/18/saddle-peak-cornices-and-crown>

<https://www.mtavalanche.com/images/18/saddle-peak-path-crown>

<https://www.mtavalanche.com/images/18/saddle-peak-crown-belowclose>

<https://www.mtavalanche.com/images/18/saddle-peak-crown-belowfar>

<https://www.mtavalanche.com/images/18/saddle-peak-avalanche-w-telephoto1>

<https://www.mtavalanche.com/images/18/saddle-peak-avalanche-w-telephoto2>

Video:

https://youtu.be/p_TrWEmHkVU

Select Photos:



Crown: 1' deep x 100' wide



Victim's location as seen from crown



Victim's location looking downslope



Telephoto of the avalanche



Avalanche path with crown and burial marked



Burial location