GNFAC Avalanche Advisory for Tue Dec 27, 2016

Good Morning. This is Doug Chabot with the Gallatin National Forest Avalanche Advisory issued on Tuesday, December 27th at 7:30 a.m. Today's advisory is sponsored by **Grizzly Outfitters** in partnership with the **Friends of the Avalanche Center**. This advisory does not apply to operating ski areas.

Mountain Weather

Under clear skies there's no new snow to report, just wind. Ridgetop winds are west to southwest at 25-30 mph with gusts near 50. Mountain temperatures are in the teens in the north and low single digits in the southern ranges. Skies will turn cloudy today with snow falling through this evening. By morning I expect 4-6 inches in the south and 2-3 inches in the north with gusty winds from the southwest at 20-30 mph.

Snowpack and Avalanche Discussion

Bridger Range Gallatin Range Madison Range

Lionhead area near West Yellowstone

Southwest Montana's snowpack has more similarities than differences. We are finding weak, sugary facets at the ground. The snow is not very supportable and you will sink to the dirt if you step out of your skis. Snowmobiles, especially short tracks, will dive into the facets on a hard turn. Both of these are signs of a poor snow structure: weaker, sugary snow underlying a denser slab. I found this on Bacon Rind (video) on Christmas and yesterday in Taylor Fork (video) while Alex, Karl and Eric saw this around Mt. Ellis (video) and Hyalite (video) in their travels since Thursday. As I said in yesterday's video, "I have yet to dig a snowpit and not have (facets) at the ground."

Along with this weekend's snowfall was wind. The mountains were very blustery and over the last two days winds loaded some slopes and scoured others at all elevations and aspects (**photo1**, **photo2**). Wind-loaded slopes put more weight on the weak layer which increases the chances of triggering a slide.

I backed off skiing avalanche terrain at Bacon Rind on Sunday and would do the same today (**photo**). There are exceptions where the snowpack is thin and not under a lot of stress, but this is not the norm. Avoid wind-loaded slopes. Not only can these avalanche, but slides may break deeper on the facets. For today, the avalanche danger is rated **CONSIDERABLE** on all wind-loaded terrain and on slopes steeper than 35 degrees. All other slopes have a **MODERATE** danger. A moderate danger, especially because of facets underlying the snowpack, is never a green light. It means human triggered avalanches are possible.

Cooke City

In the last three days the mountains around Cooke City have gotten less snow and wind than the other ranges, an anomaly. The snowpack is about 4-5 feet deep at the upper elevations. Facets at the ground (**photo**) and another weak layer in the upper third of the snowpack are the concern. Skiers felt collapsing on these layers, especially at the lower elevations where the snowpack is thinner. For today, the avalanche danger is **CONSIDERABLE** on wind-loaded slopes, and **MODERATE** on all other slopes.

I will issue the next advisory tomorrow morning by 7:30 a.m.

We rely on your field observations. Send us an email with simple weather and snowpack information along the lines of what you might share with your friends: How much new snow? Was the skiing/riding any good? Did you see any avalanches or signs of instability? Was snow blowing at the ridgelines? If you have snowpit or test data we'll take that too, but this core info is super helpful! Email us at <u>mtavalanche@gmail.com</u> or leave a message at 406-587-6984.

Upcoming Events and Education

COOKE CITY

Weekly rescue training and snowpack update, 6-7:30 p.m., Soda Butte Lodge on Friday, Field location Saturday TBA.