

GNFAC Avalanche Advisory for Mon Jan 16, 2012

Good morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Monday, January 16 at 7:30 a.m. This advisory is sponsored by **Planet Natural and Indulgence** in partnership with the **Friends of the Avalanche Center**. This advisory does not apply to operating ski areas.

Mountain Weather

Over the past 24 hours a cold winter storm has delivered nine inches of low density snow to the Bridger Range, 3-4 inches to the mountains around West Yellowstone and Cooke City and 2-3 inches in the northern Madison and Gallatin Ranges.

Falling temperatures have arrived with the falling snow. Currently mountain temperatures are ranging from the single digits above or below zero and winds are blowing 5-20 mph out of the WNW with the exception of the Bridger Range where they are blowing 5-15 mph out of the east. Today, light snow will continue to fall in the northern mountains with an additional 1-2 inches possible. Temperatures will remain cold with highs in the teens and lows tonight around zero F. Snow will end by this evening, but winds will increase to 20-30 out of the W.

Snowpack and Avalanche Discussion

The Bridger Range:

The Bridger Range has a unique ability to pull large amounts of snow out of passing storms. Although this talent has not been exercised consistently, they did manage to pull it off with this latest storm. Nine inches of snow totaling close to .5 inches of **SWE** is the first significant snowfall to grace the Bridger Range since New Years.

This new load likely won't be enough to produce widespread natural activity, but will make the snowpack sensitive the weight of a skier or rider.

Today's primary avalanche concern will be any slope that has received wind deposited snow. Because winds have been blowing out of the east, distribution patterns will be a bit unusual. Likely areas to find wind deposited snow will be on the leeward side of sub-ridges or directly below the ridgeline. Recently formed drifts should be easy to recognize, which will make them easy to avoid.

A secondary concern will be fast moving sluffs. Due to the firm nature of the old snow surface, it will be possible to get large amounts of loose snow moving down hill, especially in steep terrain. Fast moving sluffs can push skiers or riders into unfriendly terrain and also act as triggers for larger more dangerous avalanches.

Today, human triggered avalanches are likely on wind loaded slopes and slopes steeper than 35 degrees where the avalanche danger is rated **CONSIDERABLE**. Less steep, non-wind loaded slopes have a **MODERATE** avalanche danger.

The Madison and Gallatin Ranges, the Lionhead area near West Yellowstone, and the mountains around Cooke City:

The rest of our forecast area did not receive as much snow as the Bridger Range during this last storm cycle. The low density snow that did fall is adding little stress to the existing snowpack. As a result, there has not been a significant change in the avalanche hazard.

Throughout our forecast area we are dealing with one common denominator - weak snow. A lack of substantial precipitation this winter has left the snowpack in poor shape with plenty of weak layers. Slopes with any sort of a slab are the main avalanche concern today.

While some slopes consist mainly of sugary snow with virtually no slab ([snowpit](#)), others have been exposed to conditions that have created a cohesive slab 1-3 feet thick, which has formed above poorly bonded facets ([photo](#), [snowpit](#)). The most likely slopes to find a well-developed slab will be in areas that have received any sort of wind-loading over the past two weeks ([video](#)).

Conditions like these are tricky because a slope with a slab will be easier to travel on due to its supportable nature - these slopes will likely not display obvious signs of instability or otherwise give a warning of their unstable structure until you are on them and trigger a slide. Today the best way to avoid triggering an avalanche will be to stay off wind-loaded slopes and slopes greater than 35 degrees. In addition, be cautious around steep and rocky terrain where it may be easier to affect a weak layer and trigger a slide.

Today a weak snowpack structure makes human triggered avalanches possible and the avalanche danger is rated **MODERATE**.

Doug will issue the next advisory tomorrow morning at 7:30 a.m. If you have any snowpack or avalanche observations, drop us a line at mtavalanche@gmail.com or call us at 587-6984.

Beacon Parks

The Friends of the Avalanche Center installed a Beacon Training Park outside West Yellowstone last Friday. It's located south of town on the main snowmobile trail. Stop by and do a quick practice before heading off into the mountains!

Events/Education

Bozeman

[20/20 Hindsight - Lessons from recent accidents](#). Tuesday, January 17th, 6:30-7:30 p.m. at Montana Import Group

Great Falls

[1-hr Avalanche Awareness Lecture](#) Thursday, January 19th, 7-8 pm at Greenup Performance

Billings

[Snowmobiler Introduction to Avalanches with Field Course](#). Lectures on Tuesday, January 24 from 6-9 p.m. at Hi-Tech Motor Sports with an all day field session in Cooke City on Sunday, Jan 29. PRE-REGISTER BY JAN 23 at Hi-Tech!! Register with Sharon at 406-652-0090; hitech@hi-techmotorsports.com.