

[GNFAC Avalanche Advisory for Thu Nov 21, 2013](#)

This is Eric Knoff with early season avalanche information issued Thursday, November 21 at 7:30 a.m. Today's information is sponsored by the [Gallatin River Lodge](#) in partnership with the **Friends of the Avalanche Center**. This information will be updated as conditions change.

Mountain Weather

Yesterday's storm was significant. The mountains around West Yellowstone and Cooke City as well as the Bridger Ranges picked up around one inch of [SWE](#) totaling close to a foot of snow. The northern Madison Range and northern Gallatin Range received 7-10 inches of new snow while Carrot Basin SNOTEL site in the southern Madison Range squeezed out 4-5 inches. Currently, mountain temperatures are in the single digits and winds are blowing 5-10 mph out of the NNE. Today, temperatures will warm into the 20s under partly cloudy skies and winds will shift to the WSW blowing 5-10 mph. A ridge of high pressure will build over the region producing clear skies and warmer temperatures over the next few days.

Snowpack and Avalanche Discussion

It has been a good start to the season. Much of our forecast area already has 2-3 feet of snow on the ground. The mountains around Cooke City are topping the charts at 40 inches. While snow depths are fairly consistent across our forecast area, the snowpack structure varies from one area to the next.

Our most comprehensive data is from the Bridger Range. Fortunately, mild temperatures and consistent snowfall have subdued the development of widespread weak layers. On Monday, Mark and I skied near Fairy Lake and found stable snow conditions ([video](#), [photo](#)). Today, the primary avalanche concern in the Bridgers will be instability within the new snow. It will be possible for skiers or riders to trigger wind slabs below the ridgelines and storm slabs in steeper terrain.

The mountains around Cooke City have the deepest snowpack in the area. Reports indicate that faceted layers exist, though they are not widespread. Yesterday, the winds around Cooke were the strongest in our forecast area, blowing 20-40 mph for most of the day out of the WNW. Windloaded slopes and slopes steeper than 35 degrees will be the most likely to produce avalanches.

The northern Madison and northern Gallatin Ranges have a shallower and weaker snowpack ([photo](#)). A layer of facets that have developed near the ground will likely be pushed to their breaking point with this latest snowfall. North and east facing slopes, which retained snow that fell in October, will be likely areas to encounter buried weak layers.

Yesterday, a climber in Hyalite triggered soft slabs up to 10" in depth near the Mummies. If you're venturing into the mountains keep an eye out for 'bulls eye' data such as recent avalanche activity and cracking/collapsing which are key indicators the snowpack is unstable.

Our snowpack data is limited in the mountains around West Yellowstone. However, with a foot of fresh snow, there is a good chance skiers and riders could trigger avalanches on wind loaded slopes and on slopes steeper than 35 degrees.

DANGER RATINGS AND FIELD OBSERVATIONS

We will not be issuing danger ratings until we get more data about the snowpack. We need your help. Drop us a line with any of your snowpack observations, pictures or snowpits to mtavalanche@gmail.com. You can also call in your observations in at 587-6984.

EXTRA CREDIT READING

Some recent articles found on our [Blog](#):

[Avalanche Safety for Snowmobilers](#);

[The Rules of the Game – safety and strategy in avalanche terrain](#);

[Do phones interfere with avalanche beacons?](#) ;

[Staying on top during the Bozeman Ice Festival](#).

EVENTS/EDUCATION

1-Hour Avalanche Awareness Classes

BOZEMAN, November 21, 6 p.m. at Bozeman Public Library (30 min; Avalaunch)

LEWISTOWN, November 23, 3 p.m. at Eagles Club

WEST YELLOWSTONE, November 26, 6 p.m. at West Yellowstone Holiday Inn

BOZEMAN, December 2, 7 p.m. at Northern Lights Trading Company

Go to our [EDUCATION CALENDAR](#) for details and more courses.

Intro to Avalanches w/ Field Course, MSU; 4, 5 and 7 December

Info and registration: <https://www.ticketriver.com/event/7112>

Snowmobiler Intro to Avalanches w/ Field Course, West Yellowstone: 19 and 20 December

Info and registration: <https://www.ticketriver.com/event/7116>