

## **GNFAC Avalanche Advisory for Mon Dec 2, 2013**

Good morning! This is Doug Chabot with avalanche information issued Monday, December 2 at 7:30 a.m. Today's information is sponsored by [Northern Lights Trading Company](#) in partnership with the **Friends of the Avalanche Center**. This information will be updated on Wednesday, December 4 with daily advisories and danger ratings beginning on Friday, December 6.

### Mountain Weather

Cooke City has gotten over a foot and a half of new snow since yesterday morning. The southern Madison and Lionhead area are showing six to eight inches. The Big Sky area has nine inches since late Saturday night while the northern Gallatin and Bridger Ranges have about two inches of new. Winds are out of the west averaging 20-30 mph with gusts hitting 50 mph at the ridgelines. Temperatures are in the high 20's which will look like a heat wave compared to tomorrow morning. An arctic cold front is coming early this evening which will last through the weekend bringing low temperatures of -5 to -10 and highs only reaching the single digits. Snow will continue ahead of the front and by tomorrow morning the southern mountains could get another 8-10 inches with 6-8 inches around Big Sky and 3-6 inches near Bozeman.

### Snowpack and Avalanche Discussion

#### Cooke City

The avalanche conditions in the mountains around Cooke City are dangerous. About 18 inches of snow measuring 1.5 inches of [snow water equivalency \(SWE\)](#) has fallen in the last 24 hours with strong winds. This is a rapid load and the snowpack will be unstable. Yesterday, skiers reported winds moving snow around and covering their tracks quickly. Cracks shooting out from their skis were bulls-eye data that the snow was unstable. The snowpack in Cooke City has a couple of weak layers. The old snow surface is one, but another much deeper can also be triggered. Mark made two videos during his field days last week explaining the problems we are facing today ([video 1](#), [video 2](#)). The bottom line is that it really doesn't matter which weak layer will fracture. Heavy snowfall and wind are falling onto a snowpack that is struggling to support it. Human triggered and natural avalanches are very likely on steep slopes.

#### Madison Range Southern Gallatin Range

#### Lionhead area near West Yellowstone

Big Sky to West Yellowstone has received six to nine inches of snow with strong westerly winds. This new snow has fallen onto a weak surface. During the long spell of dry weather the top three inches of the snowpack faceted and got weaker. A foot off the ground is another layer of sugary facets that formed early in November. Strong winds are loading slopes and I anticipate avalanches may initially fracture on the old surface, but could step down into older snow, especially as more falls today. Skiers and riders should be conservative since it's likely a person could trigger an avalanche. Snowfall and wind will continue today and I do not expect the avalanche danger to improve in the next 48 hours.

#### Bridger Range Northern Gallatin Range

The Bridger and northern Gallatin Ranges have only gotten a couple inches of snow, but more should be coming today. Like the snowpack around Big Sky, the surface snow is weak and will be a problem when it gets loaded with more snow. Strong winds are blowing at the ridgelines and also cross-loading mid-elevation slopes. Areas with a wind-load are my main concern today and tomorrow. Cracking, collapsing and small avalanches are warnings that bigger avalanches are possible.

## **DANGER RATINGS AND FIELD OBSERVATIONS**

We will begin issuing daily avalanche advisories on Friday, December 6<sup>th</sup>. We rely on your observations, pictures or snowpits to make our forecasts accurate. Drop us a line at [mtavalanche@gmail.com](mailto:mtavalanche@gmail.com). You can also call in your observations in at 587-6984.

## **EVENTS/EDUCATION**

BOZEMAN: 1-hour Avalanche Awareness, **tonight**, 7 p.m. at [Northern Lights Trading Company](#)

BOZEMAN: Intro to Avalanches w/ Field Course, MSU; 4, 5 and 7 December. Info and registration: <https://www.ticketriver.com/event/7112>

BOZEMAN: December 6, 6:30 p.m. American Legion, \$10, Gallatin Valley Snowmobile Association Christmas Party, <http://gvsa.net/>

BOZEMAN: December 11, 7 p.m., International Mountain Day, Emerson Cultural Center, Avalanche Forecasting and Awareness. <http://www.mtavalanche.com/images/13/international-mountain-day>

FOUR CORNERS: December 11, 7 p.m., 1-hour Avalanche Awareness for Snowmobilers at the GVSA Groomer Shed, <http://gvsa.net/>

WEST YELLOWSTONE: Snowmobiler Intro to Avalanches w/ Field Course, West Yellowstone: 19 and 20 December. Info and registration: <https://www.ticketriver.com/event/7116>