

GNFAC Avalanche Advisory for Sat Jan 4, 2014

Good morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Saturday, January 4 at 7:30 a.m. [Mystery Ranch](#), in partnership with the **Friends of the Avalanche Center**, sponsors today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

Winds yesterday reached hurricane speeds in many places. They blew steady at 30-50 mph from the SW and W with gusts up to 80 mph. This morning they have calmed and are blowing 10-15 mph from the WNW. Temperatures dropped into the single digits F. With such strong winds yesterday it's hard to tell exactly how much snow fell. Near Cooke City 5 to maybe 12 inches of snow fell. Near Big Sky and Hyalite Canyon 3-4 inches fell while the Bridger Range and mountains near West Yellowstone got about an inch.

Today winds should continue at 10-15 mph from the WNW and could increase a little. High temperatures might reach the teens F but will drop to near 0 F by late afternoon. 2-3 inches of snow should fall near Bozeman, Big Sky, and Cooke City. The mountains near West Yellowstone should only get a dusting.

Snowpack and Avalanche Discussion

[Bridger Range](#) [Gallatin Range](#) [Madison Range](#)

[Lionhead area near West Yellowstone](#) [Cooke City](#)

Yesterday's strong winds transported a lot of snow ([photo](#)) and formed many wind slabs on many slopes. The Bridger Bowl Ski Patrol was able to trigger 8-10 inch wind slabs yesterday morning. Winds have calmed this morning but these wind slabs should be sensitive to human triggers today.

A scarier problem is a layer of weak facets generally found about a foot above the ground. This layer produced a fatal avalanche on New Year's Day in the northern Gallatin Range when two snowmobilers triggered a slide from meadows below a steep slope ([photo1](#), [photo2](#)). HEAD's UP: When faceted layers like this one exist in the snowpack, we don't have to get on steep slopes to trigger avalanches. Remotely triggering an avalanche happens more often when the snowpack has been loaded by new snow or wind-blown snow....like today.

Yesterday's strong winds did two things. (1) They created wind slabs which are an avalanche problem alone but easy to see and avoid. (2) They added wind-blown snow to many slopes which added weight. This added weight increased the stress on buried facets making them more likely to fracture. A skier yesterday found more avalanches ([photo](#)) breaking on this layer near Mt Blackmore in the northern Gallatin Range including one that broke on a small wind loaded slope near the trail ([photo](#)).

The Bridger Range and the mountains near Cooke City generally have a [deeper snowpack](#) that may lead to more stable conditions in the future. Unfortunately these places still have a layer of facets lurking in the snowpack 1-2 feet above the ground. This layer may heal faster than in other areas, but for now it remains a concern.

Although some places received more snow than others, every area experienced very strong winds. Skiing or riding in wind loaded, avalanche terrain today is not recommended, thus the danger is [HIGH](#) on all wind loaded slopes. Non wind loaded slopes are dangerous as well ([video](#)) and the danger on these slopes is [CONSIDERABLE](#).

Eric 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.

DANGER RATINGS – see the danger scale [HERE](#)

Today's High danger rating may be slightly overstated. However this season's snowpack has given us many reasons to be very conservative. When deciding the ratings, we can use the likelihood of triggering an avalanche, and/or travel advice. Today's ratings are based mostly on the travel advice. Also, the ratings should be used as a starting point. Once in the backcountry, make your own slope specific assessments up or down from the stated danger rating.

NEW YEAR'S DAY AVALANCHE FATALITY

See [photos](#) and [videos](#) from this accident. Later today we should have the full accident report completed and available on our [accidents page](#).

EVENTS/EDUCATION

TODAY, January 4, BOZEMAN: Saturday, 10:30 a.m. at Bridger Bowl, **Free Avalanche Transceiver Workshop**, next to rental shop at Jim Bridger Lodge.

January 7, BILLINGS: Tuesday, 6:30-8:30 p.m. at High Mountain Recreation, **90-Minute Rescue Presentation**.

January 8, BOZEMAN: Wednesday, 6:30-8 p.m. at REI, **Sidcountry IS Backcountry** lecture.

January 9, BOZEMAN: Thursday, 6-7 p.m. at Mystery Ranch, **1-hour Avalanche Awareness** lecture.

January 9, HELENA: Thursday, 6:30-7:30 p.m. at Exploration Works, **1-hour Avalanche Awareness** lecture.

January 11, COOKE CITY: Saturday, 10 a.m. to 4 p.m., **Companion Rescue Clinic for Snowmobilers**, Pre-Registration is required. <https://www.ticketriver.com/event/9445>

January 11, WEST YELLOWSTONE: Saturday, 7-8 p.m. at Holiday Inn, **1-hour Avalanche Awareness** lecture.

More information our complete calendar of events can be found [HERE](#).