

GNFAC Avalanche Forecast for Tue Dec 25, 2012

Good morning and Merry Christmas! This is Doug Chabot with the Gallatin National Forest Avalanche Advisory issued on Tuesday, December 25 at 7:30 a.m. Today's advisory is sponsored by the secular Santa and his reindeer, in partnership with the elves at the Friends of the Avalanche Center. This advisory does not apply to operating ski areas.

Mountain Weather

This morning is when we all found out if we've been naughty or nice, as if we didn't already know. Santa is a judgmental soul but still brought most of us gifts of snowfall: 5 to 6 inches in the northern Gallatin and Madison Ranges, 3 to 4 inches in the southern mountains and just a trace, the equivalent of a lump of coal, to the Bridger Range. Winds spiked yesterday afternoon to 30 mph for a couple hours, but otherwise have been light at 10-15 mph out of the west. Mountain temperatures are in the single digits and will only rise into the teens today under clearing skies. No new snow is expected in the next 24 hours.

Snowpack and Avalanche Discussion

Madison Range Gallatin Range

Lionhead area near West Yellowstone Cooke City

Yesterday afternoon's snowfall was light, 5% density, powder. Ski Patrols on Lone Peak reported the new snow getting blown into thin wind slabs that easily zippered with ski cuts. On some slopes this new snow capped a thin layer of small-grained facets that formed at the surface during the previous days of dry weather. This weak layer will keep wind slabs touchy. Skiers reported similar weakness north of Big Sky in Beehive and Middle Basins and also near Cooke City where parties reported fractures propagating thirty feet out from their skis.

The snowpack is generally strong ([Eric's photo](#)), but there are still a few slopes with weaker, faceted snow near the ground. These slopes tend to be less than three feet deep. Eric skied Mount Ellis in the northern Gallatin Range on Saturday and found two feet of weak, faceted snow. Mark rode in the Lionhead area on Saturday and saw avalanches from seven days ago that released on facets near the ground. A skier on Saturday in Middle Basin also found poor snowpack structure on a few slopes.

Wind loads near the ridgelines and above tree line is a problem today, especially because these drifts are sitting on facets and prone to avalanche. Consequently, these slopes will have a [CONSIDERABLE](#) avalanche danger. Most slopes without a wind-load are generally stable; however a sufficient number of them have weak snow near the ground that will require extra testing which points to a [MODERATE](#) danger.

Bridger Range

Without new snow, the Bridger Range's instabilities are limited to a few slopes that have thinner and weaker snow. On Friday, Mark found facets on the west side of the range in Truman Gulch. I toured near Fairy and Frazier Lake on Sunday and confirmed that thin snowpacks are our weakest ([video](#), [snow pit](#), [photo](#)). Although facets can be found on many slopes, their ability to propagate a fracture varies. On the Football Field of Saddle Peak and in Truman Gulch test results were stable, but near Frazier they were unstable (ECTP 23&21, Q1). This variability falls in line with our other areas. Consequently, today's avalanche danger is rated [MODERATE](#) on all slopes.

I 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.

ARTICLES

At the GNFAC we write articles for various publications: Carve, Montana Snowmobile Association Newsletter, The Avalanche Review. We also post these on our website, so if you are interested in reading more about avalanches check out [“Our Articles” on the “Education” page](#). Recent ones include:

- Temperature Induced Dry Snow Avalanches
- Why dig a Snowpit?
- Professional Secrets for a Quick Avalanche Rescue
- Time: The Deciding Factor

EDUCATION

Friday, December 28, World Premier of “Snow Guardians” at 7:00 p.m. at the Emerson Cultural Center. More information here: <http://www.snowguardians.com/>

Thursday, January 3, 6:00 p.m., 1-hour Avalanche Awareness lecture at 406 Brewing Company, Bozeman.

Tuesday, January 8, 7:00 p.m., 1-hour Avalanche Awareness at Big Timber High School.

Wednesday, January 9, 6:30 p.m., 1-hour Avalanche Awareness at REI, Bozeman.

Saturday and Sunday, January 12 and 13, Snowmobiler Introduction to Avalanches with Field Course. For more information and to sign up: <https://www.ticketriver.com/event/4979-snowmobiler-introduction-to-avalanches-w-field>