

GNFAC Avalanche Advisory for Wed Dec 29, 2010

Good Morning. This is Doug Chabot with the Gallatin National Forest Avalanche Advisory issued on Wednesday, December 29, at 7:30 a.m. **Montana Fish, Wildlife and Parks Snowmobile Program**, in partnership with the **Friends of the Avalanche Center**, sponsors today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

Snow is falling this morning and will continue into tonight. At 6 a.m. 8-10 inches fell around West Yellowstone; 5-7 inches around Cooke City and the Big Sky area; and 2-4 inches in the Bridger Range and Hyalite. Winds have increased out of the southwest at 20-40 mph with mountain temperatures in the teens. Snowfall will continue today and taper off tonight as temperatures dive to near zero by tomorrow morning. I expect another 3-6 inches to fall in the north and 6-10 inches in the southern ranges. Southwest winds will remain moderate throughout the storm.

Snowpack and Avalanche Discussion

The northern Madison Range:

The mountains around Big Sky have already gotten 5-7 inches and winds are loading leeward slopes. All this new snow is loading our most unstable snowpack. The primary avalanche concern today is this windblown snow. On many slopes a buried layer of surface hoar will be failing and avalanching from this rapid load. Even on slopes where this layer is absent, fresh wind slabs will likely be breaking naturally. Yesterday Mark took the sleds and rode up Buck Ridge to MacAtee Basin. One to one-and-a-half feet under the snow he found the surface hoar layer harder to trigger than a week ago (a sign of strengthening), but with today's snow load this information takes a back seat. For today, the avalanche danger is **HIGH** on all slopes that are wind-loaded. All other slopes have a **CONSIDERABLE** danger.

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

The southern mountains, especially West Yellowstone, is getting center punched by this storm. Eight to ten inches has fallen this morning, plus a conservative guess of ten more inches today will bump up the avalanche danger. Winds are blowing strong out of the southwest and I anticipate natural avalanche activity on many wind-loaded slopes. Generally the snowpack is strong, but this snowstorm will test all the layers. Around Cooke City a weakness of small facets is found a few feet under the surface. On steep slopes these may avalanche. With isolated areas of weaker snow (i.e. Bacon Rind) the possibility of triggering slides increases with slope angle. I'll be skiing with an inclinometer in my pocket today, hyper aware of the terrain above me. Avalanches are almost guaranteed on wind-loaded slopes which I'm rating **HIGH** today. Slopes fortunate enough to be spared the wind will have a **CONSIDERABLE** danger if they are steeper than 35 degrees and **MODERATE** on lower angled terrain. Remember, a *considerable* danger means it's likely to trigger a slide, and *moderate* means it's possible.

The Bridger Range and the northern Gallatin Range:

The Bridger and northern Gallatin Ranges have finally gotten freshened up with new snow after a spell of neglect. Winds are clocking 15-20 mph out of the southwest; plenty strong to wind-load leeward slopes. The snowpack in these mountains has good stability, but there are a few isolated slopes with thinner and weaker

snow, plus spots in the northern Bridgers with buried surface hoar. Even though these ranges have the most stable snow in our advisory area, with today's snowfall backcountry travel will require careful evaluation. The greatest potential of triggering a slide will be on wind-loaded slopes which have a **CONSIDERABLE** danger. All other terrain is rated **MODERATE**.

Mark 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.

Avalanche Education

Avalanche Awareness for Snowmobilers and Skiers, West Yellowstone, Holiday Inn;

Lectures: Saturday, January 1 from 12-5 p.m.; Field: Sunday, January 2 all day. No Registration Required. ([more information](#))

There are many upcoming avalanche classes in the month of January. Check them on our education page at: <http://www.mtavalanche.com/workshops/calendar>