

GNFAC Avalanche Advisory for Wed Feb 22, 2012

Good morning. This is Doug Chabot with the Gallatin National Forest Avalanche Advisory issued on Wednesday, February 22 at 7:30 a.m. **Mystery Ranch**, in partnership with the Friends of the Avalanche Center, sponsor today's advisory. This advisory does not apply to operating ski areas.

AVALANCHE WARNING

The Gallatin National Forest Avalanche Center is issuing a **Backcountry Avalanche Warning for the Bridger Range**. Heavy snowfall, high winds and an extremely weak snowpack are causing unstable conditions. Today the avalanche danger is **HIGH** on all slopes. Areas of unstable snow exist. Natural and human triggered avalanches are likely. Avalanche terrain including avalanche runout zones should be avoided.

This warning will either be terminated or updated by 6:00 AM on February 23, 2012.

Mountain Weather

During the last 24 hours snow fell, winds blew and temperatures warmed. Since yesterday morning the mountains got 4 to 10 inches of new snow with varying densities. The Bridger Range has gotten 6" of 20% density snow (1.2" [Snow Water Equivalency](#) or SWE); the northern Gallatins, Big Sky area and West Yellowstone received about 5" of new (.7-.9" SWE) and Cooke City has about 10 inches (1.4" SWE). Higher elevations were colder than the measuring stations. Colder air makes lower density powder with the same water equivalency, so expect substantially more snow the higher you go. Winds are blowing out of the west at 30-60 mph with mountain temperatures in the mid to high 20s. The storm will continue today and drop another 6-10 inches in the mountains (.6-.8" SWE) with strong winds and falling temperatures.

Snowpack and Avalanche Discussion

The Bridger Range:

Storm totals at 5 a.m. in the Bridger Range were 19 inches of snow and 2.4" of SWE. The avalanche message today is simple: **A lot of heavy snow was rapidly added to a very weak and unstable snowpack. Avalanches are very likely.**

This is the largest storm of the year and the first time the snowpack has been put under this much stress. It is failing. Weak faceted snow is unable to hold this new storm snow. Traveling in and underneath avalanche terrain is extremely dangerous. Avalanches were reported running on the ground on the west side of the range yesterday. I saw a large natural avalanche above Fairy Lake Sunday night and expect many, many more. For today in the Bridger Range we have issued an **Avalanche Warning** which means a **HIGH** danger exists on all slopes.

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

Lots of heavy, wet snow fell with stiff westerly winds. Faceted snow formed at the surface during last week's clear weather and is now buried. Skiers triggered slides on this layer over the weekend and it will continue to avalanche as more snow is piled on top of it ([Sunday's video](#) and [photo](#) shows this). Compounding the danger is weak, sugary, faceted snow at the ground. Avalanches breaking in the upper layer may step down to the

ground creating large, deadly slides. Storm totals measure 8- 12 inches, but inches of snow are not important; its total weight is. And the snow weighs a lot: 1.5-1.8” of SWE. Strong wind gusts to 60 mph have created thick, meaty drifts which further raise the instability.

The avalanche danger is rated **HIGH** on:

- Any wind loaded slope.
- Any slope 35 degrees or steeper.

The avalanche danger is rated **CONSIDERABLE** on all other slopes. This danger rating is very close to our Warning criteria. If snow continues to fall the danger will also increase.

I recommend riding lifts in the ski areas, sticking to groomed trails or staying home. If you do head into the backcountry, make sure your inclinometer is handy. Slopes steeper than 30 degrees are avalanche terrain. Do not travel in or underneath these slopes, no matter how small they are.

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.