

GNFAC Avalanche Forecast for Tue Jan 5, 2010

AVALANCHE WARNING

ISSUED ON JANUARY 5 2010 AT 4:00 PM

The Gallatin National Forest Avalanche Center is issuing a **Backcountry Avalanche Warning for the Bridger Mountains north of Bozeman**. Heavy snowfall is being deposited on an extremely weak snowpack. Already over one foot of dense snow has fallen in the Bridgers. Continued and intense snow through tonight will create very unstable conditions. **Today the avalanche danger is HIGH on all slopes**. Natural and human triggered avalanches are likely. **Avalanche terrain including avalanche runout zones should be avoided.**

You are urged to call the Gallatin National Forest Avalanche Advisory for more detailed information at **406-587-6981** or log onto their website at **www.mtavalanche.com**

This warning will either be terminated or updated by 6:30 AM on January 6, 2010.

Good Morning. This is Doug Chabot with the Gallatin National Forest Avalanche Advisory issued on Tuesday, January 5, at 7:30 a.m. **Gallatin County Search and Rescue**, in cooperation with the **Friends of the Avalanche Center**, sponsor today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

In the last 24 hours the Bridger Range picked up 6 inches of snow with Carrot Basin in the southern Madisons showing 9 inches; other areas are reading 3-4 inches. I expect all these numbers to steadily climb today and by tomorrow morning they'll be an additional 8-12 inches with the Bridgers poised to get more (I know...vague, but exciting nonetheless). Winds are west to northwest at 10-20 mph and will strengthen to 20-30 later mph today. Mountain temperatures will plummet from their current readings of 20F to 5 below zero tonight. Snow, cold and wind-what more can an avalanche forecaster ask for?

Snowpack and Avalanche Discussion

For the snowpack and avalanche discussion, let's keep one important fact in mind: all our mountain ranges have a common weak layer of buried facets. The frigid temperatures in early December were indiscriminate in weakening our snowpack. Sugary, unbonded, weak snow can be found in most areas. The only difference is the load of snow they've gotten. Today's storm may put significant amounts of snow in areas that have been untested and I expect danger ratings to climb.

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

The southern mountains have a weak snowpack and are unable to support much new snow. Over the weekend, folks triggered avalanches from underneath and adjacent terrain in the Lionhead and Taylor Fork area. Outside Cooke City a snowmobiler was killed in an avalanche on Sunday on Scotch Bonnet Mountain. [Photos](#) and a [video](#) of our investigation can be found on our website.

The snowpack in the Lionhead area is mostly unsupportable, thigh deep, sugary snow. Around Cooke City the facets are found underneath a supportable slab allowing riders to climb slopes with ease. Although the avalanches are harder to trigger, the weak layer is preserved and will clearly break if you hit the wrong spot. This is why slopes with many tracks are releasing: the riders beforehand got lucky and didn't hit the thinner, more reactive spot. Like an invisible wave of collapsing dominoes, the weak layer will fracture under the slab creating an avalanche. You just have to get the first domino to tip. Given the recent avalanche activity and continued snowfall you'll probably trigger an avalanche today if you play in terrain >30 degrees. Even lower angled slopes are dangerous if they are connected to steeper ones. Consequently, the avalanche danger is rated [CONSIDERABLE](#) on all slopes.

The northern Madison and northern Gallatin Ranges:

The northern Gallatin and northern Madison Ranges have weak, unstable snow. A skier was caught and buried in an avalanche on Mt Blackmore on Sunday ([see photo](#)). He was 3 feet under the surface and his partner dug him out. The partner skied first and even fell twice impacting the slope. But the second skier triggered it. Miraculously, no one was injured. Around Big Sky skiers are still reporting collapsing and cracking as they travel. On Saturday, a skier even remotely triggered an avalanche on Yellow Mountain. The new snow is placing additional stress on slopes creating dangerous avalanche conditions. For today the avalanche danger is rated [CONSIDERABLE](#).

The Bridger Range:

Last Thursday, Eric, Mark and I went into the Bridger Range and were taken aback at how weak the snow was. We found unsupportable facets on west facing slopes, facets underlying a slab on the east and even more sugary snow as we probed around the lower elevations. The Bridgers received 6 inches of snow in the last 24 hours. The snowpack here is untested; over the last month it's been sitting around getting weaker, and I'm not confident it can hold much snow without avalanching. For today, the avalanche danger is rated [CONSIDERABLE](#) on all slopes. I'm concerned that new snow and wind-loading may increase the avalanche danger further, so take extra care evaluating your backcountry travel plans today.

I will issue the next advisory tomorrow morning at 7:30 a.m. If you get out in the backcountry give us a call or email with your observations. You can reach us at 587-6984 or email us at mtavalanche@gmail.com.

COOKE CITY AVALANCHE FATALITY

On Sunday, January 3rd, a snowmobiler was killed in an avalanche on Scotch Bonnet Mountain near Lulu Pass. He was riding up a narrow slope bordered by trees when he triggered the slide. The slope was tracked up from previous riders. He was on a lower angled part of the slope, about halfway up, when it released. He was carried and buried 2 feet deep and pushed against trees. His partner located him quickly with a beacon, but it took 40 minutes and two others to help dig to fully extricate him. He was tangled in tree branches. The slide broke on a layer of facets 2 feet deep, was 100 feet wide and ran 1,000 feet slope distance. The steepest part of the slope, near the crown, was 35 degrees. A full report will be coming soon. Our condolences and sympathies go out to his family, friends and riding partner.