

GNFAC Avalanche Advisory for Thu Feb 17, 2011

Good morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Thursday, February 17, at 7:30 a.m. The Big Sky Ski Patrol in cooperation with the Friends of the Avalanche Center, sponsors today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

Overnight 7-10 inches of snow fell throughout the advisory area with right side up snow (warm and dense snow with cold light snow on top). The storm started warm with temperatures near 30 degrees F dropping to the low teens and single digits F this morning. Ridgetop winds throughout the storm and into this morning were blowing 20-40 mph from the SW. Cold air advection will prevent temperatures from rising today. Winds should decrease somewhat and blow 20-25 mph from the SW. Although the heaviest snow has ended, more will come today and tonight producing another 4-6 inches. An unsettled weather pattern for the next few days will not bring any major storms but generally cool and snowy weather.

Snowpack and Avalanche Discussion

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

Prior to last night's snowfall, the main avalanche problems were hard slabs of wind-blown snow following 8 days of strong winds. Hard slabs are tricky because they are unpredictable. At ski areas they do not always slide when hit with explosives unless the explosive is put on the "sweet spot." For a skier or rider in the backcountry, this often means touching them on the thinnest part of the slab. A hard wind slab on the W side of the Bridger range killed a snowboarder on Monday. This avalanche was 3 ft deep, 50 ft wide, and ran 1,300 ft vertical ([video](#)). Stay tuned for a full report from our accident investigation. Two other avalanches were observed on the E side of the Bridger range that likely occurred on Tuesday. These were 20-50 ft wide and appeared to have been triggered by falling cornices. Similar conditions exist throughout the advisory area.

Now what? New snow overnight (7-9 inches) + strong winds (20-40 mph from the SW) have created many fresh wind slabs that will easily be triggered by a skier or rider. Many of these wind slabs also rest on slopes where older hard slabs exist. These hard slabs will be stressed by the additional weight of new snow. If you trigger a fresh wind slab, it could step down causing the old hard slab to release as well and creating a large avalanche.

The good news: On slopes that were unaffected by recent winds or slopes that were scoured, new snow has likely bonded well. On these slopes without wind-blown snow, a quick snowpit about 1 ft deep can confirm this bonding. If you step out of your skis or off your sled and sink to the ground, dig a deeper snowpit. These slopes have weak snow and a relatively thin snowpack that should support the new snow, but it's worth checking with a stability test; otherwise, avoid these slopes.

For today, dangerous avalanche conditions exist on all wind loaded slopes where the avalanche danger is rated [CONSIDERABLE](#) and human triggered avalanches are likely. On slopes without wind deposited snow, a careful evaluation of snow and terrain is still required and the avalanche danger on these slopes is rated [MODERATE](#).

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.

3rd Annual Montana Ale Works Fundraiser

When & Where: March 1, Tuesday at 6:00 p.m. in the Railcar.

Cost: \$20 to benefit the Friends of the Avalanche Center

Details: Chef Roth at Montana Ale Works is creating tapas style servings that will be paired with select beer from Lone Peak Brewery. More information [HERE](#).

Upcoming Education

Saturday, February 19, West Yellowstone

The Friends of the Avalanche Center will offer a FREE Basic Avalanche Awareness Workshop at the Holiday Inn in West Yellowstone, MT. 7-8 p.m. (next to the bar) Topics include: terrain, mountain weather, snowpack, rescue procedures, and recent avalanches in local riding areas.