

GNFAC Avalanche Advisory for Mon Feb 21, 2011

Good morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Monday, February 21, at 7:30 a.m. Montana Import Group in cooperation with the Friends of the Avalanche Center, sponsors today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

A surprise storm has hammered the Bridger Range, depositing 14" of cold smoke powder over the past 24 hours, and it's still snowing! Cooke City is the runner up receiving 6-8 inches over the past 24 hours while the mountains around West Yellowstone and Big Sky including the northern Gallatin Range have picked up 3-4 inches. Ridgetop winds are strongest in the Bridger Range blowing 30-40 mph out of the W; the rest of our advisory area is receiving winds out of the WNW at 15-30 mph. Temperatures are ranging from the single digits in the north to the low teens in the south. Today, winds will continue to blow 15-30 mph shifting to the WSW and temperatures will climb into the 20's. Snow will likely taper off by early afternoon and skies will become partly to mostly cloudy. No major accumulations are expected over the next 24 hours.

Snowpack and Avalanche Discussion

The Bridger Range:

The Bridger Range has gone from high and dry to powder central overnight. This rapid load will spike the avalanche danger; once again putting the Bridger Range in a category all its own. The main issue today will be new snow instabilities. I do not expect the new snow to bond well to the old snow surface. Strong winds will make wind loaded slopes near the ridgelines the most dangerous, but loose snow avalanches in steep terrain will also pack a punch. Managing terrain carefully will be essential for safe backcountry travel. Avoiding steep and wind loaded slopes as well as avalanche run out zones is highly advised. Also, the wind chill on the ridge at Bridger Bowl is -37, so if you are heading that way bundle up!

Today, very dangerous avalanche conditions exist on wind loaded slopes where the avalanche danger is rated High. Slopes that have not received a wind load have a [CONSIDERABLE](#) avalanche danger.

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

I like it when moisture and cold air meet; it creates a light and enjoyable experience. Not only is light snow enjoyable to ride, it adds very little weight (stress) to the snowpack. However, low density snow is easily transported by the wind; often producing sensitive soft slabs on leeward slopes.

Yesterday, the Moonlight Basin Ski Patrol witnessed rapid soft slab development on upper elevation, north and east facing slopes. These fresh slabs were not very thick - 4-6", but they easily moved with ski cuts and propagated long distances. The Big Sky Ski Patrol also observed fresh slab development in upper elevation terrain.

This is opposite from what Doug and I found in Beehive Basin yesterday. On mid elevation, non-wind loaded slopes we found soft and stable conditions. Mark also found stable conditions in the southern Madison Range on Saturday.

Upper elevation, wind loaded slopes will be today's primary avalanche concern. A more isolated concern is a buried weak layer 1.5-2 feet below the surface that exists in the northern Gallatin Range. This layer continues to propagate fractures in stability tests and should be readily assessed before skiing steep terrain.

Today, human triggered avalanches are likely on wind loaded slopes where the avalanche danger is rated CONSIDERABLE. Non-wind loaded slopes have a MODERATE avalanche danger.

Doug 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.

Truman Avalanche Report

The report on the avalanche fatality from February 14th in Truman's Gulch on the west side of the Bridger Range is posted online. You can read it here: <http://www.mtavalanche.com/accident/11/02/18>

3rd Annual Montana Ale Works Fundraiser

Tuesday, March 1 at 6:00 p.m. in the Railcar at Ale Works in Bozeman

Cost: \$25 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](#).

Bridger Bowl

30th Annual Pinhead Classic on Saturday, March 5th. "Gangsters and Flappers" is this year's costume theme, so come dressed up to race, socialize and win great prizes. Registration is \$30 but get you all sorts of cool stuff. Check out the website <http://pinheadclassic.com> for details.