

GNFAC Avalanche Advisory for Thu Feb 24, 2011

Good morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Thursday, February 24, at 7:30 a.m. The Pinhead Classic Telemark Festival in cooperation with the Friends of the Avalanche Center, sponsors today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

Since yesterday morning the mountains near Cooke City and West Yellowstone received 2-4 inches of snow while mountains near Bozeman and Big Sky received only a trace to 1 inch. Winds calmed overnight and were blowing 10-15 mph from the SW this morning with temperatures near 0F. The Bridger Range is the exception where cold E winds helped drop temperatures to -12F.

Today the weather will change little with more cold temperatures and more snow. High temperatures will only be a few degrees warmer than they were this morning. Fortunately winds shouldn't change much and remain relatively calm. With a cold, dry E wind in the Bridgers, I don't expect much snow in that range. Most other areas will receive 3-6 inches by tomorrow morning.

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:

There are two basic types of instabilities/weak layers:

1. Persistent ones that form during periods of high pressure with warm sunny days and clear cold nights (i.e. layers of faceted snow).
2. Temporary ones that form during storms with new snow and/or wind (i.e. fresh wind slabs sitting on low density snow).

The advisory area has experienced only isolated periods of warm sunny days and clear cold nights; consequently, the snowpack generally lacks persistent weak layers, but a few exceptions exist. The Northern Gallatin Range has a layer of facets about 2 ft deep, but this layer gained strength and no longer propagates fractures in stability tests. A similar layer exist further south near West Yellowstone. On most slopes this layer has also gained significant strength and is not a concern, but Doug found one slope where it was ([video](#)). Otherwise, many areas have a deep and strong snowpack with SNOTEL sites showing total snow depths of 5-8 ft.

The primary avalanche problem involves instability #2. New snow + wind has created good conditions for soft slab avalanches. Recent weather has provided plenty of new snow and wind to move it. Yesterday the Big Sky Ski Patrol triggered numerous wind slabs about 1 ft deep. Often these wind slabs and drifts are easy to identify and avoid. They can be found on the lee sides of ridges and gullies often under cornices which have grown very large recently. Fortunately this type of instability can disappear quickly once the wind stops blowing and snow stops falling.

With new snow falling on every one of the past 8 days and steady winds mostly from the W and SW, heightened avalanche conditions exist in typical, wind loaded locations. For today the avalanche danger 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.

Upcoming Events

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](#).

Pinhead Classic

The 30th Annual Pinhead Classic on is 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. All proceeds benefit the Friends of the Avalanche Center. Check out the website <http://pinheadclassic.com> for details.

OTHER NEWS

New Snowpits Page

In response to our survey we added a new page to the website with images of our snowpit profiles. This page is under the Resources/Other Info tab at www.mtavalanche.com/snowpits

Lost shovel handle? – A shovel handle was found near Mt. Blackmore recently. Contact us if it's yours.

Backcountry Skier Survey – Researchers at Alaska Pacific University are studying decision making in backcountry skiers and would like to get information from you. If interested in this 10-15 minute survey, go to this website: https://www.surveymonkey.com/s/SE_AK_Backcountry_Skiing_Research