

GNFAC Avalanche Advisory for Tue Jan 11, 2011

Good morning. This is Doug Chabot with the Gallatin National Forest Avalanche Advisory issued on Tuesday, January 11, at 7:30 a.m. **Yellowstone Club Community Foundation**, in cooperation with the **Friends of the Avalanche Center**, sponsor today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

Under partly cloudy skies mountain temperatures are a few degrees below zero with light westerly winds averaging 10-15 mph. Today temperatures will break the zero degree mark and warm into the upper single digits; not exactly balmy, but a warming trend non-the-less. Clouds and wind speeds will increase this afternoon although no snow is expected for the next 24 hours.

Snowpack and Avalanche Discussion

The northern Madison Range:

The mountains around Big Sky have a layer of surface hoar buried 2-3 feet deep. It's strengthening...slowly. On some slopes it already collapsed or cannot be found in snow pits, while on others it's ripe to avalanche. Last Thursday, skiers found a pocket of surface hoar the hard way: they triggered a slide ([video](#), [photo](#), [photo](#)). It was buried by a wind drift only a short distance away from where it was absent in their snowpit. It caught them by surprise and carried a snowboarder down the hill without injury. This scenario is waiting to play out again. We know the weak layer may be tricky to find, especially as it gets buried deeper in the snowpack. That makes it all the more crucial to look for. Additionally, winds at the higher elevations created slabs which the Moonlight Basin Ski Patrol was able to trigger with ski cuts. For today, wind-loaded slopes steeper than 35 degrees have a **CONSIDERABLE** avalanche danger. All other slopes have a **MODERATE** danger.

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

Yesterday, Eric, Randy Elliott (the General Manager of Bridger Bowl) and I trekked out to investigate Sunday's avalanche below the south summit of Saddle Peak named Argentina Bowl ([video](#)) ([many photos](#)). This southeast facing, 35-40 degree slope was triggered by a skier as he traversed the top of the bowl. The slide ranged in depth from 1-3 feet deep, was 75-100 feet wide and ran 800-1,000 feet vertical. It was triggered in thin snow where facets grew and were capped 10 days ago by a very dense, knife hardness wind slab. Even though the surface area of the slide was not very big, the volume of debris was impressive and had the toughness of cinder blocks making survivability unlikely. An avalung, airbag, or helmet would not have made much of a difference; you would have been beaten senseless. There are likely other spots near the ridgeline where thin, rocky sections have pockets of facets that will fracture into stronger, deeper snow. These zones are not to be trifled with. Since the slabs are denser than normal, pushing your pole into them is impossible—a quick test to see if you're standing on one.

On Sunday, Eric skied the west side of the Bridger Range and found stable snow except on southwest aspects that had facets buried two feet deep, breaking easily. Skiers in the southern Madison Range also found isolated facets two feet under the surface breaking clean on one slope out of their three tested. Variability of wind slabs along ridgelines and thinner, faceted slopes demand extra investigation. Given the heightened avalanche awareness needed to discern stable slopes, for today, the avalanche danger is rated **MODERATE** on all wind

loaded terrain. Any slope steeper than 35 degrees will also have a **MODERATE** danger while less steep terrain has a **LOW** danger.

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.

Beacon Park in Bozeman

Feeling rusty with your avalanche transceiver? The new beacon park at Beal Park in Bozeman is up and running. It's got four transmitters and the park is open 9 a.m. to 8 p.m. every day. The Friends of the Avalanche Center and the City of Bozeman worked together to make this possible.

Avalanche Education

January 11, TONIGHT in Big Timber:

In partnership with the Sweetgrass County High School in Big Timber, the Friends of the Avalanche Center will offer a FREE Basic Avalanche Awareness Workshop at the Big Timber High School between 7-8 p.m.

January 12, Wednesday in Billings:

The Friends of the Avalanche Center in partnership with Families for Outdoor Recreation will offer a FREE Basic Avalanche Awareness Workshop and beacon demonstration at Hi Tech Marine in Billings, MT between 6-8:30 p.m.

January 12, Wednesday in Dillon:

In partnership with the Birch Creek Center at UM Western in Dillon, MT, the Friends of the Avalanche Center will offer a FREE Basic Avalanche Awareness Workshop in Block Hall, Room 311 on the campus of UM Western at 7-8 p.m.

January 15, Saturday in Cooke City:

The Friends of the Avalanche Center will be sponsoring a 1 hr Basic Avalanche Awareness @ Cooke City Firehall – 6pm to 7pm

For additional information and a listing of other avalanche classes, go to:

<http://www.mtavalanche.com/workshops/calendar>