

## **GNFAC Avalanche Advisory for Wed Jan 12, 2011**

Good morning. This is Doug Chabot with the Gallatin National Forest Avalanche Advisory issued on Wednesday, January 12, at 7:30 a.m. **Big Sky Ski Patrol**, 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 no new snow fell. Mountain temperatures slowly climbed to 10F, except in Cooke City and West Yellowstone where they are anchored near zero. West to southwest winds are blowing 15-25 mph under partly cloudy skies. Clouds will blanket us completely by late morning as wind speeds increase out of the southwest and gust into the 30s. Mountain temperatures will reach the high teens with scattered snow falling late this afternoon. By morning 2-4 inches are expected with more accumulating on Thursday.

### Snowpack and Avalanche Discussion

#### *The northern Madison Range:*

The mountains around Big Sky have two instabilities working against them. The first is wind slabs. These are confined to the upper elevations and ski patrols found them touchy and reactive on some slopes again yesterday. The second instability, which is trickier to assess, is the layer of surface hoar buried 2-3 feet deep on many slopes. Last Thursday a snowboarder fractured this layer in Beehive and was caught in a slide. The next day skiers got it to collapse on Yellow Mountain. This surface hoar is tricky because it's deep and strengthening. Not all slopes are prime to avalanche; thoughtful and thorough snowpack investigations are essential. Before the avalanche on Thursday the group dug a pit, found good stability, yet when the boarder descended an adjacent slope, it slid. The feathers of surface hoar managed to survive in a wind-protected pocket ([video](#)). For today, the avalanche danger continues to be **CONSIDERABLE** on all wind-loaded slopes steeper than 35 degrees. All other terrain has 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:*

Weak and unstable snow continues to be found on thin spots near the ridgelines. Yesterday in the Bridger Range, north of Wolverine Bowl, two skiers backed off a line they were inspecting when the slope collapsed and cracked above them. The snowpack was thin and the crack wide. They abandoned their plans to dig a pit and ski the gully. There are similarities between this and Sunday's skier triggered slide in Argentina Bowl in the Bridger Range ([video](#)) ([many photos](#)). Both were very close to the ridgetop with thin snow depth. Thin snow can create weak, faceted grains. And as we're now seeing, the stress of wind-loads on these sugary facets can propagate fractures. I don't believe this recipe is confined to the Bridger Range either.

These two skiers did an excellent job traveling safe. They skied one at a time to a safe zone 100 feet off the ridgeline with the intention of testing the snow stability before committing to their line. This is a good practice no matter what the avalanche danger. They got a free pass on breaking out their shovels when the slope warned them with a whumph. This obvious sign of instability, especially on the heels of Sunday's avalanche, lends weight and seriousness to the **MODERATE** avalanche danger which is found on all wind-loaded slopes. Any slope steeper than 35 degrees will also have a **MODERATE** danger while slopes less steep will have a **LOW** danger.

Mark 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](mailto: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 12, TONIGHT 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 – 6p.m. to 7p.m.

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

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