

## **GNFAC Avalanche Advisory for Fri Jan 14, 2011**

Good morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Friday, January 14, at 7:30 a.m. The Hans Saari Memorial Fund, 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 the mountains near Cooke City and West Yellowstone received 6-8 inches of snow, the mountains near Big Sky received a trace to 1 inch, and the mountains near Bozeman remained dry. Little has changed in the weather with warm and windy conditions which should continue today. Temperatures this morning were in the mid 20s F except near Cooke City and West Yellowstone where they were in the high teens F. Winds were blowing 15-30 mph from the WNW with gusts near Bozeman in the 40s. Today temperatures should approach 30 degrees F, and winds shouldn't change much. By tomorrow morning only a trace to 1 inch of snow should fall, but more is coming this weekend.

### Snowpack and Avalanche Discussion

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

A skier yesterday in the southern Madison Range found faceted snow formed at the surface during very cold temperatures early this week. With new snow on top of this weak layer, he easily ski cut 4-12 inch soft slabs. Deeper in the snowpack, no widespread, persistent weak layers exist. Isolated areas may contain deeper instabilities, but these are rare. This means what you see in your snowpit or test slopes will be very similar to what you will find on bigger slopes nearby. With new snow and continued strong westerly winds, soft slab avalanches are the primary concern especially on slopes with wind drifted snow. For today with easily triggered wind slabs, the avalanche danger is rated [CONSIDERABLE](#) on wind loaded slopes steeper than 35 degrees and [MODERATE](#) on all others.

The northern Madison Range:

Personally, I'd drive right past the Big Sky area and head further south where stability assessments are easier. Riding in the mountains near Big Sky requires more work to safely play in avalanche terrain. Fresh wind slabs are the main issue as they are in the rest of the advisory area, and yesterday Gallatin Snow Rangers noted substantial drifting on Buck Ridge even at lower elevations. What makes stability assessments more difficult is a layer of buried surface hoar about 2-3 ft deep. This layer has gained some strength but at different rates on different slopes. Also, it doesn't exist everywhere which means you may not find it on one slope, but may find it on another. Today heightened avalanche conditions exist where the surface hoar is present and where recent wind drifts exist and the avalanche danger is rated [MODERATE](#).

The Bridger Range and northern Gallatin Range:

Sadly, the mountains near Bozeman have received stronger winds than other areas and less snow. The main areas of concern exist near ridgelines where the snowpack is thin. Because temperatures at the bottom of the snowpack are always 32 degrees F, recent periods of very cold weather have created steep temperature gradients where the snowpack is thin. Steep temperature gradients create weak, faceted snow. Recent strong winds have capped this weak snow with stiff wind slabs and given us a good recipe for an avalanche ([video](#), [photos](#)

). Without the stress of new snow, these wind slabs shouldn't be very sensitive, but they make human triggered avalanches possible. For today, the avalanche danger is rated [MODERATE](#) on all wind loaded slopes, [MODERATE](#) on all slopes steeper than 35 degrees, and [LOW](#) on less steep slopes without a wind load.

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](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 15, TOMORROW in Cooke City:

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

##### January 15, TOMORROW in West Yellowstone:

The Friends of the Avalanche Center will be sponsoring a FREE 1 hr Basic Avalanche Awareness @ Holiday Inn – 7pm to 8pm

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

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

#### Other Events

##### January 14 & 15, TONIGHT and Saturday in Bozeman

Hans Saari Memorial Fund presents the Up There 2011 Ski Film Festival @ Emerson Cultural Center. \$10 per night with drinks and music. Visit [www.hansfund.org](http://www.hansfund.org) for more info.

##### January 15, Saturday, Poker Ride at Buck Ridge

Support the Avalanche Center and the Gallatin Valley Snowmobile Association with this Saturday's Poker Ride. Register 9 a.m. to Noon at the Buck Ridge parking lot. \$5 each hand. Final card at the Corral with a chili feed at 4 p.m.