

## **GNFAC Avalanche Advisory for Sun Dec 7, 2014**

Good morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Sunday, December 7 at 7:30 a.m. Today's advisory is sponsored by [Outlaw Partners](#) and [Bozeman Ski Guide](#). This advisory does not apply to operating ski areas. Bridger Bowl is now open for the season and uphill travel is not allowed.

### Mountain Weather

Over the past 24 hours the mountains around Cooke City received three inches of dense snow; the rest of the advisory area picked up 1-2 inches. At 4 a.m. mountain temperatures range from the mid 20s to low 30s F and winds are blowing 10-20 out of the WSW. The one exception is Cooke City where winds are cranking 20-30 mph with gusts in the 40s. Today, a ridge of high pressure will build over the region producing clear skies and warm temps by this afternoon. Mountain temps will warm into the mid to upper 30s F and winds will continue to blow 10-20 out of the WSW with stronger gusts along the ridgelines. High pressure will remain parked over the area producing dry and even warmer conditions tomorrow.

### Snowpack and Avalanche Discussion

#### Cooke City

The mountains around Cooke City continue to squeeze out every bit of moisture from passing storms. Since yesterday afternoon, [Fisher Creek Snotel](#) site received .3 inches of SWE ([snow water equivalent](#)). This puts the four day total at 1.3 inches of SWE. This recent load will be putting additional stress on weak layers buried deep in the pack. Strong winds out of the WSW will be transporting snow onto leeward slopes, applying even more stress to buried weak layers. Slopes facing north and east will be the most likely to hold heavier deposits of wind-blown snow.

While wind slabs below the ridgelines are a concern, the primary avalanche problem remains facets near the ground. This persistent weak layer exists on all aspects and elevations. Yesterday, a local ski guide was getting this layer to propagate in stability tests. He mentioned he was concerned about the ever growing slab on this weak layer and will continue to keep his slopes angles low.

Today, I would avoid all slopes steeper than 35 degrees which have a [\*\*CONSIDERABLE\*\*](#) avalanche danger. Less steep slopes have a [\*\*MODERATE\*\*](#) avalanche danger.

#### Bridger Range   Gallatin Range   Madison Range   Lionhead area near West Yellowstone

Rainy conditions at the Christmas Stoll last night was actually not a bad thing - it is a whole lot better than clear and sub zero weather at this point. Why? Because we are dealing with a shallow snowpack that is very susceptible to drastic changes in the weather. A frigid cold snap would quickly allow the formation of another faceted layer that could plague our snowpack for months.

For better or for worse, the recent warm weather is helping stability, but is hurting overall riding conditions. Today, the snowpack on lower elevation slopes will likely resemble a cold plate of mashed potatoes ('tis the season). On upper elevation slopes, riding conditions will be fairly decent - however, the slopes that hold the best riding will be the most likely to produce an avalanche.

Upper elevation slopes facing the north half of the compass continue to be the most problematic. Yesterday, the Big Sky Ski Patrol triggered multiple large avalanches during control work; all of which occurred on north facing slopes and failed on facets near the ground. One avalanche on the North Summit Snowfield produced a crown nearly eight feet deep. This avalanche was an isolated event, but is a good reminder of what's possible. Skiers up Bacon Rind in the southern Madison Range also received unstable results in stability tests on facets near the ground.

Today, evaluate the snow and your terrain choices carefully. Avoid blindly dropping into upper elevation slopes, especially those in steep, rocky terrain facing the north half of the compass. Today – human triggered avalanches are possible and 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](mailto:mtavalanche@gmail.com) or call us at 587-6984.

Have a Smartphone or Tablet? The Friends of the Avalanche Center just published two FREE apps so you can get the latest avalanche information, videos and photos: **IOS 8 GNFAC App**; **Android app**

### **AVALANCHE EDUCATION and EVENTS**

Take a look at our **Education Calendar** for all our classes being offered.

**Avalanche Awareness (1-hour), Wednesday, December 10, 6:30 p.m. at REI, Bozeman**

**Avalanche Awareness (1-hour), Thursday, December 11, 6 p.m. at Summit Motorsports, Bozeman**

**Weather Workshop, Thursday, December 11, 6:30 p.m. at REI, Bozeman**

**Fundraiser at Katabatic Brewing, Tuesday, December 16, 4-8 p.m., Livingston**

**Avalanche Awareness and Beacon Practice, Wednesday, December 17, 6:30-8:30 p.m. at Beall Park, Bozeman**

**Snowmobiler Introduction to Avalanches with Field Course**

West Yellowstone: Dec 18 and 19, 2014: <https://www.ticketriver.com/event/12955>

Five hours of lectures are followed by a full day field course. Topics covered include: avalanche terrain recognition, the affect weather has on avalanche hazard, the development of the mountain snowpack, decision making skills, and basic search and rescue procedures.