

## **GNFAC Avalanche Forecast for Thu Jan 7, 2010**

Good Morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Thursday, January 7, at 7:30 a.m. **Yamaha and Team Bozeman**, in cooperation with the **Friends of the Avalanche Center**, sponsor today's advisory. This advisory does not apply to operating ski areas.

### Mountain Weather

No new snow fell during the past 24 hours. With an inversion occurring this morning, mountain temperatures were near or a few degrees below 0 F, while valley temperatures are in the negative teens F. Winds are relatively calm blowing 10-18 mph from the WNW although isolated areas have stronger winds gusting up to 30 mph as cold air drains to the valleys. These drainage winds should diminish later this morning as temperatures begin climbing to highs in the teens F at 9000 ft. Under mostly sunny skies winds will blow 10-15 mph from the WNW.

### Snowpack and Avalanche Discussion

Yesterday many large avalanches occurred throughout southwest Montana.

1. Bridger Range: Many slides that ran far and stepped down into deeper layers of snow were triggered by the Bridger Bowl Ski Patrol. A skier was caught and buried near Bradley Meadows. Many naturals were seen in northern Bridger Range. A snowmobiler triggered an avalanche in the Flatirons.
2. Big Sky Area: Large avalanches were spotted on Cedar, Fan, Beehive, and Wilson. At Big Sky a massive natural avalanche occurred at night during the storm and extended from the Little Couloir well into the A-Z Chutes. The Yellowstone Club Ski Patrol triggered many [climactic avalanches](#) which broke near the ground. The Moonlight Basin Ski Patrol also triggered avalanches breaking near the ground.
3. Lionhead near West Yellowstone: Large natural avalanches were easily seen from town.
4. Cooke City: Avalanches occurred on all aspects and elevations from small road cuts to large bowls including several seen near Daisy Pass and on [Mt Republic](#). A regular observer and very experienced skier commented he has never seen such widespread avalanche activity in a 24 hour period.

Many more avalanches likely occurred in places like Mt Blackmore, the Taylor Fork drainage, and other areas but were not seen or reported.

I rode and skied in the Northern Bridger Range yesterday where my partner and I witnessed a large avalanche on the Throne. A rider playing in low angle terrain triggered the avalanche near the toe of the slope that slid. We were amazed how easily the snowpack propagated a fracture up the slope, through dense trees and across prominent rock bands to produce an avalanche. At nearly the same time, Eric witnessed a skier trigger, get caught in, and buried by an avalanche on a south facing slope near Bradley Meadows. He immediately directed his partners to start a beacon search and assemble probes and shovels while managing the scene and manning his radio. They quickly found the skier who was nearly fully buried and luckily not injured. See a [photo](#) from this avalanche. See a video of the [Throne avalanche](#) and the [skier burial](#) near Bridger Bowl.

Why are these avalanches occurring? Extreme cold weather in early December severely weakened the snowpack creating large faceted crystals near the ground. These are easy to find in snowpits. Doug found a highly faceted snowpack on Mt Ellis yesterday where there was only 7 inches of new snow, yet he was skinning in snow up to his knees because the facets would not support his skis. Snowfall prior to yesterday's snow pushed

the snowpack near its breaking point and several notable, human triggered avalanches occurred. With yesterday's new snow, the snowpack could not support itself any longer and many natural avalanches occurred.

What to do? Avoid avalanche terrain which is any slope steeper than 30 degrees both big and small. Avalanche terrain is also any slope, even relatively flat ones, connected to steeper terrain. Slides can be triggered on these low angle slopes as we saw yesterday in the Bridger Range on the [Throne](#) and on Sunday in [Cooke City](#) when a rider was killed in low angle terrain connected to a 35 degree slope.

Natural avalanche activity will diminish today except on wind loaded slopes near ridgetops as well as lower slopes where downhill winds this morning were drifting snow. Today throughout the advisory area, both natural and human triggered avalanches are likely on slopes with wind drifted snow where the avalanche danger is rated [HIGH](#). Human triggered avalanches will also occur on non wind loaded slopes where the avalanche danger is rated [CONSIDERABLE](#).

### **COOKE CITY AVALANCHE FATALITY**

On Sunday, January 3<sup>rd</sup>, a snowmobiler was killed in an avalanche on Scotch Bonnet Mountain near Lulu Pass outside Cooke City. A complete report is posted on the [Accidents page](#) with photos and a video.

I will issue the next advisory tomorrow morning at 7:30 a.m. If you get out in the backcountry give us a call or email with your observations. You can reach us at 587-6984 or email us at [mtavalanche@gmail.com](mailto:mtavalanche@gmail.com).