

## **GNFAC Avalanche Forecast for Thu Jan 5, 2012**

Good morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Thursday, January 5 at 7:30 a.m. This advisory is sponsored by Montana FWP Recreation Trails Grant. This advisory does not apply to operating ski areas.

### Mountain Weather

This morning temperatures were in the 30s F and winds were averaging 15-30 mph from the W and SW gusting 35-50 mph. This morning will remain warm and windy. Clouds will move over the area and by afternoon bring cooler air which will keep temperatures in the 30s F. Winds shouldn't ease until this evening, and some areas could receive a dusting or even an inch of snow by tomorrow morning.

### AVALANCHE INCIDENTS

We have posted [many photos](#) and [several videos](#) from the two avalanche fatalities outside Cooke City. Full reports will be made public later this week.

Good news: In the avalanche in Hayden Creek south of Cooke City, a dog (a Corgi) was caught and presumed to be buried and dead. However, yesterday afternoon this dog appeared at the Antlers Lodge outside the hotel room where the victim and his wife were staying. Residents of Cooke City helped reunite this dog with its family.

### Snowpack and Avalanche Discussion

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

Unstable conditions persist and recent warm weather has not changed the situation. The structure of the snowpack remains the same. A heavy slab of snow rests on a snowpack containing weak, faceted layers that will fracture and produce an avalanche. Evidence of this instability:

- Yesterday near Cooke City a skier experienced lots of collapsing, a clear sign that the snowpack remains unstable.
- On Lionhead near West Yellowstone, Karl Birkeland was studying fracture mechanics by filming his stability tests with a high speed camera. His test results showed unstable conditions ([video](#)). He also experienced collapsing and cracking ([photo](#)). If the slope had been steeper than 30 degrees or connected to a steeper slope it would have avalanched.
- In the Bridger Range, the Bridger Bowl ski patrol continues to trigger avalanches in terrain that has very similar conditions to the backcountry.
- Near Big Sky in Beehive Basin yesterday, a skier found new snow resting on very weak, faceted, old snow. His stability test results mirrored Karl's on Lionhead. Even though he saw ski tracks on the slope, he did not ski it.

The problem now is that the snowpack might let a skier or rider take a chance and get lucky. A recent video near Jackson Hole is a good example. The first skier got very lucky and did not trigger an avalanche, but 10 minutes later a snowboarder easily triggered the entire face. See the video [here](#) (it has some foul language). For today, human triggered avalanches remain likely and the avalanche danger is rated [CONSIDERABLE](#).

## The northern Gallatin Range:

Stability is better in the northern Gallatin Range. Yesterday Eric and his partners were skiing in Hyalite where they found a good bond between this weekend's snow and the old snow surface. They also found obvious facets near the ground, but thought it would be difficult to trigger an avalanche on this layer unless you found an area with a thinner snowpack like steep rocky slopes. They also saw evidence of a large cornice that broke and hit the slope below, but it did not trigger an avalanche – a good sign. Some areas have a layer of surface hoar buried about a foot deep. I found it on Mt Ellis ([snowpit](#), [photo](#)) and did not ski steeper open areas under the burn based on the existence of this layer. Skiers near Lick Creek also found a buried surface hoar layer and opted for lower angle terrain. With buried surface hoar on some slopes and the existence of facets near the ground, human triggered avalanches are possible and the avalanche danger is [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.

## EVENTS/EDUCATION

To check out all our education programs: <http://www.mtavalanche.com/workshops/calendar>

### BOZEMAN

[Snowmobiler Introduction to Avalanches with Field Course](#). Lectures on Saturday, January 7, with an all day field session Sunday, January 8. Advanced registration IS REQUIRED.

[1-hr Avalanche Awareness Lecture](#). Wednesday, January 11, 6:30-7:30 p.m. at REI.

[20/20 Hindsight - Lessons from recent accidents](#). Tuesday, January 17th, 6:30-7:30 p.m. at Montana Import Group

### BIG TIMBER

[1-hr Avalanche Awareness Lecture](#). Tuesday, January 10, 7-8 p.m. at Big Timber High School.

### HELENA

[1-hr Avalanche Awareness Lecture](#). Thursday, January 12, 6:30-8:30 p.m. at Exploration Works.

### COOKE CITY

[1-hr Avalanche Awareness Lecture](#). Saturday, January 14, 5-6:00 p.m. at Cooke City Community Center.

### CODY, WYOMING

[Snowmobiler Introduction to Avalanches with Field Course](#). Lectures on Saturday, January 14 at Mountain Valley Motorsports with an all day field session near Cooke City on Sunday, January 15. Advanced registration IS REQUIRED.

### BILLINGS

[Snowmobiler Introduction to Avalanches with Field Course](#). Lectures on Tuesday, January 24 from 6-9 p.m. at Hi-Tech Motor Sports with an all day field session in Cooke City on Sunday, Jan 29. PRE-REGISTER BY JAN 23 at Hi-Tech!! Register with Sharon at 406-652-0090; [hitech@hi-techmotorsports.com](mailto:hitech@hi-techmotorsports.com).