

## **GNFAC Avalanche Advisory for Sun Mar 1, 2009**

Good morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Sunday, March 1st, at 7:30 a.m. Island Park Adventures and Yamaha in cooperation with the Friends of the Avalanche Center sponsor today's advisory. This advisory does not apply to operating ski areas.

### Mountain Weather

Yesterday was warm and sunny and a great day to be in the mountains. Winds increased overnight mostly near Big Sky and were blowing 15-25 mph gusting into the 40s from the southwest and west this morning. Under cloudy skies temperatures remained mild and were in the mid 20s F. Mostly cloudy skies will continue today as moisture streams into the area from the southwest with warm air. Temperatures will be in the mid 30s F and winds will blow 20-30 mph from the southwest and west. No snow will accumulate today or this evening; however, Monday evening has a good chance for accumulating snowfall.

### Snowpack and Avalanche Discussion

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

Highly variable conditions exist throughout the advisory area, and skiers and riders were on many slopes taking advantage of beautiful weather yesterday. Some slopes especially ones without a wind load are safe to play on while others are not. Areas like the west side of the Bridger Range, Mt Ellis, portions of the Hyalites, and west facing slopes in Beehive Basin have a very shallow and weak snowpack. Other slopes have a deeper and mostly strong snowpack but contain several potential weak layers within the top 2-3 ft. One of these layers produced a human triggered avalanche near Cooke City yesterday on a small, wind loaded slope. No one was injured. See a picture at: <http://www.mtavalanche.com/photos/photos.php>

Yesterday my partner and I investigated snow in the northern Bridger Range. The weakest area we found was a south facing, wind loaded slope where our stability tests easily propagated fractures near an ice crust buried 2 ft deep. We wondered what this result meant, but the snowpack gave us a clear sign of instability when my partner stepped out of the snow pit and the slope collapsed with a loud whoomph. On Friday north of West Yellowstone I found a very weak snowpack also on a south facing slope. The new snow fractured easily in stability tests and needed only the slightest wind to form a slab capable of producing an avalanche. A short video clip showing this snowpack can be seen at: <http://www.youtube.com/watch?v=SmRpuytvchk>

A group of skiers northwest of West Yellowstone on Thursday found extremely sensitive snow on north aspects where pockets of surface hoar were buried about 1.5 ft deep. The following day they found more unstable snow where winds had formed a slab. These pockets of surface hoar are especially scary because they are not widespread. They have been found mostly near West Yellowstone and in the southern Madison Range where some sheltered north facing slopes are stable while some with buried surface hoar are not.

Conditions vary widely but a few common themes exist. Wind loaded slopes should be treated with great caution. Many south and west facing slopes have a shallow weak snowpack easily capable of producing an avalanche especially with wind deposited snow. Similarly weak snow can be found on other aspects and you'll know it when you step out of your skis or off your sled and sink to the ground. Sheltered north facing slopes may have good snow and stable conditions but may also have pockets of buried surface hoar. For these reasons today throughout the advisory area wind loaded slopes steeper than 35 degrees have a **CONSIDERABLE** avalanche

danger. Human triggered avalanche remain possible on all other slopes where a [MODERATE](#) danger exists.

## AVALANCHE FATALITIES IN WYOMING

On Friday three people were killed in an avalanche in the Snake River Range of Wyoming where the danger was rated Moderate. The victims plus a fourth person were riding on the slope at the same time. Fortunately the fourth person was not completely buried. He was able to free himself from the debris then walk to a place where he could get cell phone reception to call 911. The full story can be found at:

[http://www.jhguide.com/article.php?art\\_id=4304&pid=news](http://www.jhguide.com/article.php?art_id=4304&pid=news)

## AVALANCHE EDUCATION

1. March 6-9 the Montana Outdoor Science School will offer a Level I avalanche class. Contact MOSS at 406-582-0526 or [admin@outdoorscience.org](mailto:admin@outdoorscience.org) for more information.

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 send us an email with your observations. You can reach us at 587-6984 or at [mtavalanche@gmail.com](mailto:mtavalanche@gmail.com).