

# GNFAC Avalanche Forecast for Mon Feb 7, 2011

## AVALANCHE WARNING

ISSUED ON FEBRUARY 7 AT 5:00 PM

The Gallatin National Forest Avalanche Center is issuing a Backcountry Avalanche Warning for the Bridger and northern Gallatin Range as well as the mountains outside Cooke City. Heavy snowfall since Saturday has been deposited on a weak snowpack. Strong winds at all elevations are loading slopes further. Continued and intense snow through tonight will create very unstable conditions through Tuesday, February 8. The avalanche danger is rated [HIGH](#) on all slopes. Very dangerous avalanche conditions exist in these ranges. Travel in avalanche terrain is not recommended and avalanche runout zones should be avoided.

This warning will either be terminated or updated by 6:30 AM on February 9, 2011.

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## ADVISORY:

Good morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Monday, February 7, at 7:30 a.m. Gallatin County Search and Rescue, in cooperation with the Friends of the Avalanche Center, sponsors today's advisory. This advisory does not apply to operating ski areas.

## Mountain Weather

A strong NW flow has delivered yet another round of moisture to southwest Montana. Since midnight, 3-4 inches of new snow has fallen in the mountains around Big Sky and Bozeman, all other locations have picked up 2-3 inches. Winds have been ramping up with the arrival of this storm blowing out of the WNW at 20-30 mph with gust reaching into the 40s. Mountain temperatures are currently in the teens and will warm into the low 20s by this afternoon. Snow and wind will continue throughout the day with an additional 6-8 inches falling the north and 3-6 inches accumulating in the south.

## Snowpack and Avalanche Discussion

The Bridger Range, the northern Madison and northern Gallatin Ranges, the mountains around Cooke City and the Washburn Range:

Yesterday, a skier was caught and injured in a slide near Frasier Lake in the northern Bridgers. The slide broke 18" deep and failed on the skier's first turn, resulting in a long and harrowing ride. This incident resulted in a broken femur. A second group triggered another slide in the same area, but fortunately no one was caught. Read a more detailed report at the end of the advisory.

Our new snowpack set up may be a complete game changer. Weak surface layers that developed during the earlier part of last week have now been buried by nearly two feet of new snow, resulting in a potent recipe for avalanche activity. With more snow and wind on the way, conditions will become even more hazardous; making the ski areas or the movies more attractive than the backcountry.

Yesterday, Doug and I toured to Mt. Blackmore in Hyalite and observed the unstable snowpack first hand ([video](#), [photo](#)). We found a large natural slide that occurred on Blackmore's east face. This slide propagated 300 ft across, broke over a foot deep, and ran the entire slope ([photo](#)). Our snowpit confirmed the message that the natural slide had sent ([snowpit](#)) - there is now a substantial load precariously perched upon a well defined weak layer, which in this case involves near surface facets that formed during our last bout of high pressure. A similar arrangement of layering was observed by skiers in Yellowstone National Park ([photo](#)).

With natural and human triggered avalanches taking place over the past 24 hours, it is apparent our once stable snowpack has taken a U turn.

Today, very dangerous avalanche conditions exist on all wind loaded slopes where the avalanche danger is rated [HIGH](#). Slopes that have not received wind loading have a [CONSIDERABLE](#) avalanche danger.

#### The southern Madison and southern Gallatin Ranges and the Lionhead area near West Yellowstone:

The southern ranges have not been left behind when it comes to the development of a substantial weak layer; they just have not received a big enough load to make this layer a major problem. At this point it's not if - but when this layer will wake up and become reactive. Since this layer is only buried under 8-12 inches of new snow, quick hand pits and frequent stability evaluations will help determine the distribution and sensitivity of this layer.

Today, the main avalanche concern is any slope that has been recently wind loaded where the avalanche danger is rated [CONSIDERABLE](#). Slopes without a wind load have [MODERATE](#) avalanche danger.

#### Accident Report

Yesterday, two separate parties of skiers triggered avalanches near Frazier Lake in the northern Bridger Range. The first group of three skinned to the top of long and popular east facing chute (>45 degrees). The first skier triggered a slide that broke 18" deep about 1/2 way down the run, but managed to ski out of it. This slide broke on the weak interface between the new and old snow.

A second group decided to ski a nearby steep slope (also >45 degrees) slightly to the north. They were unaware of the previous avalanche. The first skier safely descended the run. The second skier had the slope break on his first turn. He tumbled over 1,000 feet through rocks and was almost fully buried. By wiggling his head and using his free arm he was able to dig himself out. His femur was broken, but luckily it was not an open fracture. His partner shouted to the other group who returned to the scene. A cell phone call to Gallatin County Search and Rescue got rescuers and a helicopter to the scene. He was evacuated with only minutes of daylight to spare.

Doug 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.

#### 9th ANNUAL KING AND QUEEN OF THE RIDGE

The 9th Annual King and Queen of the Ridge will be held at Bridger Bowl on Saturday, February 12. ALL proceeds go to the Friends of the Avalanche Center who use the money to promote avalanche education in southwest Montana. You can help raise money to continue this education in two ways: 1). Get pledges and hike the ridge. You don't have to do 20 laps - you can get flat pledges and hike just once! Or you can test your mettle and try and break John Yarrington's record of 29 laps in 5 hours. 2). Sponsor someone. If you don't have someone to sponsor, consider sponsoring the GNFA since we'll be hiking for dollars. Go to [http://bridgerbowl.com/events/view\\_event/81/](http://bridgerbowl.com/events/view_event/81/) for more information and registration forms.

## Avalanche Education

### February 9 in Bozeman

Lucas Zukiewicz-NRCS, from the Montana Snow Survey will present information about the SNOTEL system in Montana, and how to gather and interpret SNOTEL information for backcountry avalanche conditions and travel planning. This free lecture will be held at the REI on 19<sup>th</sup> Street, from 6:30 p.m. to 8:00 p.m. More info can be found at: <http://www.rei.com/event/16591/session/20368>

### February 12 and 13 in Cooke City

Avalanche Workshop for Snowmobilers and Skiers – Lectures on Saturday 12 p.m. – 4:30 p.m.

field session on Sunday 9 a.m. – 3 p.m. ADVANCED REGISTRATION REQUIRED ([more information and registration](#))

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

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