

## GNFAC Avalanche Forecast for Sun Feb 6, 2011

Good morning and happy Super Bowl Sunday. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Sunday, February 6, at 7:30 a.m. Team Bozeman, in cooperation with the Friends of the Avalanche Center, sponsors today's advisory. This advisory does not apply to operating ski areas.

### Mountain Weather

Like the Packers running over the Steelers – potent weather events have marched right into southwest Montana, arriving on a strong NW flow. Since yesterday morning, the Bridger Range, northern Gallatin Range and mountains around Cooke City have received 10-12 inches of new snow. The mountains around Big Sky have picked up 5-6 inches, while the mountains around West Yellowstone have picked up 2-3 inches. Winds are currently blowing out of the WNW at 15-20 mph and will continue along these lines for the remainder of the day. Mountain temperatures are ranging from the single digits to low teens and will gradually climb into the mid 20s by this afternoon. Snow will taper off by this morning, but another round of moisture will move back into our region by early tomorrow. Another foot of snow is possible in the northern mountains by tomorrow evening.

### Snowpack and Avalanche Discussion

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

During the early part of last week, warm sunny days and cold clear nights helped to develop surface weaknesses - mainly surface hoar and near surface facets with some facet/crust combinations developing on solar aspects. Although warm temperatures during the later part of this past week wreaked havoc on these layers at lower elevations, isolated pockets of surface hoar and a wider distribution of near surface facets will likely be found on slopes above 8,000 ft. These layers are now under a tremendous amount of stress - being buried by 12-18" of new snow. Slopes that contain buried weak layers have the potential for producing larger slides capable of propagating long distances.

With the new snow and wind, the most pressing avalanche hazard today will be fresh soft slabs that have formed along the leeward side of upper elevation ridges. No weak layer will be necessary for avalanches to occur in wind loaded terrain. Keep your eyes and ears open for shooting cracks and loud wumpling sounds; these are obvious clues the snowpack is unstable. Also, lower elevation sub-ridges and gullies have been cross loaded by NW winds, making backcountry travel tricky. Yesterday, the Yellowstone Club Ski Patrol found cross loaded slopes to be very reactive to both ski cuts and explosives. With the combination of wind loading and buried weak layers, careful snowpack evaluation, cautious route finding, and good communication will all be necessary when traveling in avalanche terrain.

Today, a HIGH avalanche danger exist on all wind loaded slopes. Slopes that have not received a wind load have CONSIDERABLE avalanche danger.

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

You can't win them all. Like the Jets stomping the Patriots, the southern Madison Range and Lionhead area near West Yellowstone have been upset by this latest storm - receiving less than half the amount of snow as the northern ranges. This however, does not make the southern ranges exempt from avalanches. Surface hoar and near surface facets have likely survived better in these areas due to cooler temperatures, and new snow has fallen

– just not as much. The one element the southern ranges have received is wind; and as we know it only takes a few inches of snow combined with strong winds to make heightened avalanche conditions. Today, wind loaded slopes are the primary avalanche concern. Look out for rounded pillows, specifically near ridgelines, and always test smaller hills before committing to larger, more dangerous slopes.

Today, a CONSIDERABLE avalanche danger exists on all wind loaded slopes. Slopes that have not received a wind load have a MODERATE avalanche danger.

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.

## 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 GNFAC 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>