

[GNFAC Avalanche Forecast for Fri Feb 4, 2011](#)

Good morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Friday, February 4, at 7:30 a.m. Bridger Bowl, in cooperation with the Friends of the Avalanche Center, sponsors today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

After cold weather early this week, this morning feels like a heat wave with temperatures in the mid to high 20s F except near West Yellowstone where temperatures were in the low teens F. Winds this morning were blowing 20-35 mph from the W and NW. Most places received an inch of snow overnight and more should return later today. High temperatures should be near 30 degrees F (low 20s for West Yellowstone) and strong winds will continue blowing 20-40 mph from the W and NW. 3-4 inches of snow should accumulate by tomorrow morning. Sunday evening I'm expecting more snow and a big win by the Steelers.

Snowpack and Avalanche Discussion

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

The primary issue today will be shallow wind slabs formed by strong winds during the last 48 hours. Without much new snow available, these fresh wind slabs shouldn't be very wide or deep. They will mainly be a problem in terrain where small slides have the potential to sweep a skier or rider over rocks, into trees, or into a confined gully amplifying the consequences of a small slide.

A future issue will be bonding between new snow and the old snow surface. The old snow surface became weak and faceted during recent dry weather with warm sunny days and clear cold nights. How does this happen? Read an [article](#) that Doug wrote recently. In many areas strong winds removed this thin layer of near surface facets. These events create spatial variability meaning some slopes will have this new weak layer and others will not. Identify slopes where new snow doesn't seem to bond well because these slopes will be problem once a slab forms.

An older issue is any slope with relatively thin snow. You've found one of these slopes if you step out of your skis or off your sled and immediately sink to the ground ([video](#)). These slopes exist at low elevations where less snow has fallen or at higher elevations in steep rocky terrain. Even though the snowpack on these slopes is weak, it has not been stressed by recent snow and is mostly stable. Avalanches occurred on these slopes during the third week of January after a week of snowfall and wind loading. It will take more significant snowfall and wind to activate these slopes again.

Recently formed wind drifts are today's primary avalanche concern. Throughout our advisory area the danger is rated [MODERATE](#) on all wind-loaded slopes steeper than 35 degrees and [LOW](#) everywhere else.

Eric 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 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 GNFAAC since we'll be hiking for dollars. Go to 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 19th 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>