

[GNFAC Avalanche Forecast for Sat Jan 29, 2011](#)

Good morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Saturday, January 29, 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

The weather pattern is finally changing with some snowfall and cold air approaching. This morning temperatures were in the high teens to low 20s F and winds were blowing 15-30 mph from the W. Today temperatures will climb to the mid to high 20s F and winds will continue blowing 15-30 mph from the W. Places north of the advisory area will receive snow and much colder temperatures today. Snowfall in advisory area will arrive as moisture from the southwest meets cold air descending from the north. By tomorrow morning 2-3 inches of snow should fall in most places; however, exact amounts depend on the timing of this moisture and cold air which could meet late this evening or tomorrow morning.

Snowpack and Avalanche Discussion

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

Recent avalanche activity has been observed in multiple locations throughout the advisory area including several in the northern and southern Madison Range ([photo](#)), one near Cooke City, and several in the northern Bridger Range ([photo1](#), [photo2](#), [photo3](#)). These slides have occurred on a variety of aspects but all were triggered by cornices falling onto steep, rocky areas where the snowpack is thin and faceted. Additionally these slides have been able to run substantial distances. The largest one was observed on a SE aspect in the northern Madison Range and probably occurred last weekend following last week's snowy weather. Steep slopes with a thin snowpack contain the weakest snow. Because a falling cornice is like the blast from a shotgun, it has a better chance of hitting the target and triggering a slide. For a skier or rider to trigger one of these slides today, the slope will need to be tickled in just the right spot which is often part of the slope with the thinnest snow.

Why do certain slopes have a thin snowpack ([example photo](#))? A variety of events led to thin snow in some places. Several strong wind events in November and December scoured certain slopes. In other steep, rocky places it simply takes longer for the snow to accumulate as much of it sluffs downhill. During the last month many of these areas became weak and faceted. Now they are covered by snow from recent storms and getting harder to identify from a distance. As they have adjusted to recent loading, they are also harder to trigger.

Smaller avalanches have occurred on a thin layer of facets that formed more recently during brief periods of warm sunny days and clear cold nights. This layer has been most sensitive on slopes with exposure to the sun. An observer in the northern Madison Range yesterday observed shooting cracks in a wind slab resting on this layer on a SW aspect.

Many areas contain strong snow, some areas contain weak snow, but only isolated terrain features have unstable snow. The snowpack is generally strong and safe avalanche conditions exist making the avalanche danger for today [LOW](#). Remember a low danger does not mean no danger.

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.

West Yellowstone: Beacon Park Operational

Skiing or riding near West Yellowstone? Test your beacon skills at a beacon park near the old airport where you can search for pre-placed beacons switched on/off by a control panel. Look for it by orange snow fence and signage just south of the snow cross track.

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. Last winter we taught 64 classes reaching over 4,900 people. You can help raise money to continue this education in 2 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/ for more information and registration forms.

[Avalanche Education](#)

February 2, 3, and 5 in Bozeman

Advanced Avalanche Awareness –Wednesday & Thursday 7:00p.m. – 9:30 p.m. at MSU SUB Room 235 with a field day on Saturday at Bridger Bowl. ADVANCED REGISTRATION REQUIRED ([more information](#)) ([Register](#))

February 12 and 13 in Cooke City

Avalanche Workshop for Snowmobilers – Lectures on Saturday 12 p.m. – 4:30 p.m. and a field session on Sunday 9 a.m. – 3 p.m. ADVANCED REGISTRATION REQUIRED ([more information and registration](#))