

## **GNFAC Avalanche Advisory for Thu Jan 30, 2014**

Good morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Thursday, January 30 at 7:30 a.m. [Helio Collective](#) and **Javaman** sponsor today's advisory. This advisory does not apply to operating ski areas.

### Mountain Weather

Since yesterday morning 8-12 inches of dense snow fell throughout the advisory area. Overnight winds were blowing 25 mph gusting to 40 mph from the W and SW. This morning temperatures were in the high teens and low 20s F, and winds in most places had shifted to the NW and eased a little. As a cold front descends from the north today, temperatures should drop and winds should calm even more. The cold air and calm winds had already reached the Bridger Range at 5 a.m. Today another 3-4 inches of snow should fall. Temperatures should drop to near 10 degrees F with winds blowing 5-10 mph gusting to 20 mph from the NW.

### Snowpack and Avalanche Discussion

[Bridger Range](#) [Gallatin Range](#) [Madison Range](#)

[Lionhead area near West Yellowstone](#) [Cooke City](#)

The situation today is pretty simple. 8-12 inches of heavy new snow fell since yesterday. This snow contained 1.2-1.8 inches of [snow water equivalent \(SWE\)](#) in the Bridger Range and 0.7-1.0 inches of SWE in other areas. Winds may calm today but were strong enough last night and this morning to transport the new snow. These winds mean that slopes with wind-blown snow may easily have double the load of new snow and will produce natural avalanches.

The new snow and wind alone will cause avalanches. To make matters worse, this new snow fell on a thin layer of small faceted crystals that formed on the snow surface on many slopes during the last week of high pressure ([video](#) skip to 0:55). Yesterday a skier just north of Big Sky experienced cracks shooting 30 feet where 3 inches of new snow had fallen on small faceted crystals on a thin ice crust. Another skier south of Cooke City found a 4-6 inch avalanche on a WNW aspect ([photo](#)). This avalanche and these shooting cracks are early warning signs that more avalanches will occur today.

Avalanches can easily be 1-2 feet deep today, but can be 4-6 feet deep if they break on weak facets near the ground. These facets have been mostly dormant during the last week of dry weather but were producing many avalanches just over two weeks ago. They gained some strength during this time but the new snow will push them closer to their breaking point. These facets are weakest and most widespread in the mountains south of Bozeman, near Big Sky and near West Yellowstone. They are more isolated in the Bridger Range and near Cooke City.

Today heavy new snow, wind, and buried faceted layers will make the avalanche danger **HIGH** on wind loaded slopes steeper than 35 degrees where natural avalanches are likely and human triggered avalanches are very likely. All other slopes have a **CONSIDERABLE** 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.

## **KING AND QUEEN OF THE RIDGE**

Saturday, February 15<sup>th</sup> is the **12<sup>th</sup> Annual King and Queen of the Ridge** Hike/Ski-a-thon fundraiser to support avalanche education in southwest Montana. Collect pledges for one, two or the most ridge hikes you can do in the five hours of competition. 100% of the proceeds go to the Friends of Gallatin National Forest Avalanche Center. Kids and families are encouraged to hike too! Hike as an Individual or Team. [Make a Pledge](#). [Sign Up](#). [More Info](#).

## **ANDROID APP**

If you have an android phone or tablet, you can download our new free app. It's a slick way to get the advisory. [Search Google Play for GNFAC](#). An iOS version is coming soon. Stay tuned.

## **EVENTS/EDUCATION**

February 6, BOZEMAN: Thursday, 6-8 p.m., Beall Park; **Women's Specific Avalanche Awareness Class and Transceiver Practice**.

February 8, BUCK RIDGE: Saturday, 10 a.m. to 4 p.m., **Companion Rescue Clinic for Snowmobilers**, Pre-Registration is required. <https://www.ticketriver.com/event/9446>

February 8, WEST YELLOWSTONE: Saturday, 7-8 p.m., Holiday Inn, **1-hour Avalanche Awareness** lecture.

February 12, BOZEMAN: Wednesday, 6:30-7:30 p.m., MSU Procrastinator Theater, **Sidecountry IS Backcountry** lecture.

More information our complete calendar of events can be found [HERE](#).