

GNFAC Avalanche Advisory for Sun Feb 2, 2014

Good morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Sunday, February 2 at 7:30 a.m. **Cooke City Motorsports and Yamaha** in partnership with the **Friends of the Avalanche Center** sponsor today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

Over the past 24 hours no new snow has fallen. This morning temperatures are in the single digits above or below zero F. Winds are blowing 5-15 mph out of west-southwest with a few localized gusts reaching into the 20s. Today, temperatures will warm into the teens F under mostly clear skies and winds will continue to blow 5-15 mph out of the west-southwest. Clouds will gradually roll in this afternoon as another storm system approaches from the west. Light snow will start falling tomorrow morning and will continue through the day. The mountains should see 4-6 inches by Tuesday.

Snowpack and Avalanche Discussion

Gallatin Range Madison Range

Lionhead area near West Yellowstone

Last week I talked with people who went road biking, rock climbing and golfing – what a difference a week can make. Now we're back in the heart of winter with plenty of fresh snow and sub-zero temperatures. The return to winter has made for great skiing and riding conditions, but has also elevated the avalanche danger.

Today, the primary avalanche concern will be wind loaded slopes. Overnight winds increased out of the west-southwest. With plenty of fresh snow available for transport, wind slabs likely formed on leeward slopes. Stronger winds stay confined to upper elevations, which likely loaded alpine starting zones and slopes below ridgelines. Fresh wind slabs will easily fail under the weight of a skier or rider.

A trickier avalanche problem today will be persistent slabs. The mid-January dry spell formed a thin layer of near surface facets or surface hoar on many slopes. This persistent weak layer is now capped by over a foot of fresh snow. Fortunately, you only have to dig 1-2 feet below the surface to assess the strength and distribution of this layer. Cracking, collapsing and recent avalanche activity are obvious clues buried weak layers are present.

The monster in the basement is a layer of facets about a foot off the ground. This layer can be found on most slopes and still holds the potential to produce large and destructive avalanches. Although this layer has gained strength over the past few weeks, it still can't be trusted.

Today, human triggered avalanches are likely on wind loaded slopes and slopes steeper than 35 degrees which have a **CONSIDERABLE** avalanche danger. All other slopes have a **MODERATE** avalanche danger.

Bridger Range Cooke City

Over the past five days the Bridger Range and mountains around Cooke City have received over two feet of fresh snow totaling more than 2" of SWE (snow water equivalent). Fortunately, the snowpack is stronger in these areas helping limit the avalanche problems to new snow instabilities.

Today, the primary avalanche concern in the Bridger Range will be wind loaded slopes. Overnight winds ramped up blowing close to 30 mph along the ridge. This likely formed fresh wind slabs directly below the ridgeline. These fresh wind slabs will be sensitive to human triggers. Winds weren't nearly as strong at mid-elevations, which will keep this problem confined upper elevation starting zones.

Surprisingly, winds have been calmer in the mountains around Cooke City. Although winds have been on the light side, I wouldn't be surprised to encounter isolated wind slabs on upper elevation, leeward slopes.

Another avalanche problem for both areas will be a layer of small grained facets buried under the new snow. This layer of facets exists on some slopes but not all. Over the past two days I was riding near Cooke City and found this layer mostly on west and south aspects near an ice crust ([video](#), [photo](#)). Skiers near Round Lake also found unstable conditions on south facing slopes. This layer is not as widespread in the Bridger Range, but should be looked for before committing to steeper slopes.

Isolated slopes may have facets near the ground that could produce very large avalanches. On most slopes in the Bridger Range and near Cooke City, this layer is not a problem but it is lurking in isolated areas.

Today, the avalanche danger is rated **CONSIDERABLE** on wind loaded slopes and slopes steeper than 35 degrees. All other slopes 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 or call us at 587-6984.

KING AND QUEEN OF THE RIDGE

Saturday, February 15th is the **12th 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.

February 22, BIG SKY: Saturday, 10 a.m. – 2 p.m., Beehive Basin Trailhead, **Companion Rescue Clinic**. Space is limited and pre-registration is required. <https://ticketriver.com/event/9964>

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