

## **GNFAC Avalanche Advisory for Fri Feb 7, 2014**

Good morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Friday, February 7 at 7:30 a.m. [Cooke City Motorsports](#) and **Yamaha**, in partnership with Friends of the Avalanche Center, sponsor today's advisory. This advisory does not apply to operating ski areas.

### Mountain Weather

In many places compared to yesterday it is 30 degrees warmer this morning with mountain temperatures in the single digits F. Good thing it warmed because winds increased to 10-20 mph with gusts of 25 mph from the SW. This morning 2-3 inches new snow fell near Cooke City and West Yellowstone. Other areas were dry. Today temperatures should warm into the low teens F. Winds will shift to the W and decrease a little. Snow will fall in most areas. The southern areas should get 4-5 inches of snow while the northern areas should get 1-3 inches. Snow will end tonight but will return tomorrow morning.

### Snowpack and Avalanche Discussion

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

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

The southern half of the advisory area has a thin layer of weak facets buried 1-2 feet deep on many slopes (Cooke City [video](#), West Yellowstone [video](#)). This layer formed during two weeks of dry weather in January. It has produced both natural and human triggered avalanches throughout this week near Cooke City ([photo](#), [photo](#)). Beartooth Powder Guides experienced collapsing and cracking ([photo](#)) on this layer during the last three days.

These observations are clear warning signs that this layer will produce more avalanches. Most activity has occurred on S and SE aspects but not all as skiers found last weekend on a NE aspect ([photo](#)). These slides have not been huge but big enough to bury a person or cause trauma. More snow today means human triggered avalanches are likely. For this reason today the avalanche danger is rated **CONSIDERABLE**.

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

[Northern Madison Range](#)

The northern half of the advisory area has a similar layer of weak facets buried 1-2 feet deep. Evidence of this layer can be found on many slopes but it is only a problem on a few. Yesterday in Beehive Basin north of Big Sky, my partner and I assessed this layer on many slopes. It was not a problem on many but weaker on a few and produced an avalanche on one in Middle Basin ([photo](#), [video](#)). On Mt Ellis yesterday, Eric and his partner couldn't get any layer in the snowpack to break in stability tests. It was too bad because their reward for braving cold temperatures was horrible skiing as a result of E winds.

Unfortunately we have not found a clear pattern as to where this thin layer of facets will produce an avalanche and will not. Fortunately it is only buried 1-2 feet deep and you can perform multiple stability tests quickly and easily.

There's another problem. In Beehive yesterday we assessed the snowpack on a slope that slid in late December on weak facets about a foot above the ground. These facets have become very weak depth hoar and now have a

new slab of snow resting on them ([photo](#)). While not a widespread problem, these slopes could produce a large avalanche. It's hard to know where they exist, but slopes with a snowpack shallower than a ski pole are good candidates.

Many slopes are stable and some are not, and it's hard to know where the danger is lurking without putting your shovel in the snow. The overall danger for today is [MODERATE](#). This danger rating is a starting point and could be a little higher or lower depending on the slope.

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](mailto:mtavalanche@gmail.com) or call us at 587-6984.

## TWO NEW [BLOG](#) POSTS

Eric wrote an article titled, "[The Facet Factory An Introduction to Snow Metamorphism](#)".

Doug posted an article called, "[Toughness and Survival](#)".

## 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](#).

## EVENTS/EDUCATION

TOMORROW, 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](#).