

GNFAC Avalanche Advisory for Fri Dec 12, 2014

Good morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Friday, December 12 at 7:30 a.m. Today's advisory is sponsored by [**Montana Import Group**](#) in partnership with the **Friends of the Avalanche Center**. This advisory does not apply to operating ski areas.

Mountain Weather

This morning temperatures were in the low 30s F, and strong south winds continued blowing 20-30 mph gusting 50-70 mph. Temperatures should warm into the mid to upper 30s F today and strong southerly winds will continue. The exception is the Bridger Range which did not have such strong winds yesterday or this morning. Clouds will build this afternoon, and late tonight 1-2 inches of snow should fall near West Yellowstone. Other areas may get a trace of snow. A cold front passing through the area tonight will bring calmer winds and cooler temperatures tomorrow.

Snowpack and Avalanche Discussion

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

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

Below zero F weather during the second week of November created a layer of weak facets at the ground. The strength of this layer varies a lot from one slope to the next. In some places warm weather has helped this weak layer gain a little strength. In other places warm weather has had no effect. Many slopes are relatively stable while some with the right combination of a slab and this weak layer remain unstable.

1. Yesterday, a snowmobiler climbing under Chimney Rock by Daisy Pass north of Cooke City triggered an avalanche ([photo1](#), [photo2](#)). He was three quarters of the way up the slope on his fourth highmark when it fractured. He kept the throttle wide open and the slab passed under him like a treadmill. Another smaller slide was supposedly triggered on Wednesday on the other side of Daisy Pass by Crown Butte.
2. On Saddle Peak in the Bridger Range yesterday my partner and I found conditions ([video](#)) that mirror much of the advisory area. In about half of our six snowpits ([weak profile](#)), weak facets at the ground propagated fractures in stability tests. In some places there was no slab, just weak facets. In a isolated spots the snowpack was strong and stable ([strong profile](#)).
3. A regular observer found similar conditions near Big Sky and found worse conditions further south in the Southern Madison Range where all his stability tests propagated fractures on facets near the ground. He also experienced some collapsing and cracking of the snowpack, a clear sign of an unstable slope.
4. In Hyalite Canyon south of Bozeman, Doug and his climbing partners found mostly stable conditions but also found facets near the ground that would make an avalanche possible ([video](#)). On the same day nearby on Mt Blackmore, skiers experienced some collapsing, cracking, and one good whumpf of the snowpack.
5. The Yellowstone Club Ski Patrol tested their snowpack for the first time of the season on Wednesday with explosives and triggered many full path avalanches on slopes that had not released naturally around Thanksgiving.

The bottom line is that facets near the ground exist throughout the advisory area and in many places they have shown the ability to propagate a fracture. Without the weight and stress of new snow, starting a fracture in this weak layer is generally hard to do, but recent avalanches and other observations show it can be done on some

slopes. For these reasons today the avalanche danger is rated **MODERATE**.

The weak layer at the ground should be tested before hitting a steep slope. Doug just wrote an article **posted on our blog** titled “Put Your Shovel in the Snow!” which explains this in more detail.

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.

Have a Smartphone or Tablet? The Friends of the Avalanche Center just published two FREE apps so you can get the latest avalanche information, videos and photos: [iOS 8 GNFAC App](#); [Android app](#)

AVALANCHE EDUCATION and EVENTS

Take a look at our [Education Calendar](#) for all classes being offered.

Avalanche Awareness (Free 1-hour), Sunday, December 14, 3 p.m. at Redline Sports, Butte

Fundraiser at Katabatic Brewing, Tuesday, December 16, 4-8 p.m., Livingston

Avalanche Awareness and Beacon Practice, Wednesday, December 17, 6:30-8:30 p.m. at Beall Park, Bozeman

Avalanche Awareness (Free 1-hour), Thursday, December 18, 6 p.m. at the Yellowstone Association, Gardiner

Snowmobiler Introduction to Avalanches with Field Course

West Yellowstone: Dec 18 and 19, 2014: <https://www.ticketriver.com/event/12955>

Five hours of lectures are followed by a full day field course. Topics covered include: avalanche terrain recognition, the affect weather has on avalanche hazard, the development of the mountain snowpack, decision making skills, and basic search and rescue procedures.