

[GNFAC Avalanche Advisory for Thu Dec 31, 2015](#)

Good morning. This is Alex Marienthal with the Gallatin National Forest Avalanche Advisory issued on Thursday, December 31, at 7:30 a.m. Today's advisory is sponsored by [Montana Ale Works](#) and [Alpine Orthopedics](#). This advisory does not apply to operating ski areas.

Mountain Weather

The mountains received a trace of new snow over the last 24 hours. Except in the Bridger Range where 5" of very low density snow fell. Temperatures this morning are in the single digits above and below zero F. Winds have been northerly at 5-10 mph with gusts around 20 mph. Light snow will continue this morning and skies will clear this afternoon. Calm wind will continue out of the N-NW and temperatures today will reach the low teens F. Next year will start with clear skies and daytime temperatures in the 20s F.

Snowpack and Avalanche Discussion

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

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

Light snowfall and calm wind over the past week has resulted in fewer avalanches. Eric observed a couple small slides near Cooke City yesterday ([photo](#), [photo](#)), which are signs that the snowpack is unstable. However, these are the only recent avalanches observed or reported in the last two days. It appears the snowpack is getting stronger and avalanches are becoming more difficult to trigger.

The problem is that the snowpack in all areas consists of weak, sugary depth hoar underlying a thick slab. If an avalanche is triggered on this weak layer it will likely be large and have high consequences. My partner and I observed this setup in Truman Gulch on the west side of the Bridger Range yesterday ([video](#)), and Doug and I saw similar conditions in the southern Madison Range on Tuesday ([video](#)). An avalanche that was likely triggered by a snowmobiler earlier this week near Cooke City is a good reminder that large avalanches can be triggered from shallow spots in the snowpack ([photo](#), [photo](#)). Initiating an avalanche is getting more difficult, but the potential high consequences require conservative route finding and decision making.

The good news is that there is only one weak layer that we have to look for. Without obvious signs of instability you have to do your homework and dig a snowpit to look for this weak layer. I would avoid travelling on steep slopes where this weak layer exists. Many experienced backcountry travelers have avoided steep slopes and found good skiing and riding elsewhere like Doug and his partner did on Sunday near Hebgen Lake ([video](#)). Depth hoar is scary stuff and cannot be trusted. This weekend, the sun will shine and skiing and riding will be great. As more tracks are placed on slopes, it will become more likely that someone will find a shallow area and trigger an avalanche. It's like Russian roulette.

For today, the avalanche danger is rated **CONSIDERABLE** on all slopes steeper than 35 degrees and **MODERATE** on less steep slopes. "Moderate" means human-triggered avalanches are possible. If you are unlucky enough to trigger one, it may be large and deep.

I will issue the next advisory tomorrow morning at 7:30 a.m. If you have any snowpack or avalanche observations to share, drop us a line at mtavalanche@gmail.com or leave a message at 587-6984.

EVENTS and AVALANCHE EDUCATION

A complete calendar of classes can be found [HERE](#).

West Yellowstone: January 2, *Ihr Avalanche Awareness*, West Yellowstone Holliday Inn, 7-8:30 p.m.

Bozeman: January 6, *Women's Avalanche Awareness and Beacon 101*, Beall Park, 6-8 p.m.

January 9 and 10, *Companion Rescue Clinic*, REI, Fri 6-8p.m., Sat 10a.m.-2p.m.

January 13, *Ihr Avalanche Awareness*, REI, 6-7:30 p.m.

Livingston: January 14, *Ihr Avalanche Awareness*, Neptune's Brewery, 6-7:30 p.m.

Dillon: January 19, *Ihr Avalanche Awareness*, UM Western Library, 6:30-8 p.m.

ASMSU Intro to Avalanches w/ Field Course

January 20, 21 and 23 or 24: <https://www.ticketriver.com/event/16861>

The workshops will be held on Wednesday and Thursday evenings, with a field course on either Saturday or Sunday. Different topics will be presented each evening. Topics include: avalanche terrain recognition, the effect weather has on avalanche hazard, the development of the mountain snowpack, decision making skills, and basic search and rescue procedures.