

## **GNFAC Avalanche Forecast for Thu Jan 7, 2016**

Good morning. This is Alex Marienthal with the Gallatin National Forest Avalanche Advisory issued on Thursday, January 7, at 6:55 AM. Today's advisory is in memory of Jens Anderson, on his birthday, who passed last April in an avalanche on Beehive Peak. This advisory does not apply to operating ski areas.

### Mountain Weather

Last night, a trace of new snow fell in the northern ranges and 1-2" fell in the southern ranges. Winds were 5-10 mph out of the southeast to southwest, and temperatures this morning are in the teens to low 20s F. Today, wind will blow 5-10 mph out of the southwest and shift to the north to northeast tonight. Temperatures will be in the 20s F and cool to the teens this afternoon. Light snow will continue through today and the mountains will receive another 2-3" by morning.

### Snowpack and Avalanche Discussion

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

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

Yesterday I toured in the mountains near Big Sky and observed a snowpack that tells the story for our entire advisory area. Weak sugary depth hoar on the ground is capped by a thick slab to form an unstable snowpack structure ([photo](#)). This poor structure was responsible for natural and human triggered avalanches throughout the second half of December ([photos page](#)). On our tour, we observed widespread crowns from natural avalanches that failed on this depth hoar almost two weeks ago. The fact that these crowns are still visible is a sign that the weak layer has had minimal stress from snow and wind loading, but they are reminders that this snowpack does not like to support much weight. Our stability tests required a lot of force to collapse and propagate a fracture on the depth hoar, but we chose low angle terrain due to the high consequences of triggering an avalanche on this layer.

It has been one week since we have observed or had reports of avalanches on the depth hoar near the ground. There are fewer areas where you could trigger an avalanche, but it is still possible to trigger a large avalanche from the right spot. Shallower areas in the snowpack are typical trigger points, but these are not always obvious and easy to avoid. The consequences are large, despite the low likelihood ([video](#)). For this reason, cautious route finding and conservative decision making should be practiced.

Another problem is wind slabs that formed earlier this week. The Big Sky ski patrol reported that these slabs were less reactive yesterday. However, they should be avoided in the backcountry where they may rest over weak faceted snow near the surface like Doug and Eric observed in Lionhead on Sunday ([video](#)). These slabs can be identified as smooth chalky pillows near ridgelines and on leeward slopes, and should be avoided ([photo](#)). They could bury or injure a person, or trigger a larger avalanche deeper in the snowpack.

Wind slabs and buried depth hoar make human triggered avalanches possible. The avalanche danger today is rated **[MODERATE](#)** on all slopes throughout our advisory area.

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

## EVENTS and AVALANCHE EDUCATION

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

**EVENT in Bozeman:** January 19, 5:30-7 p.m. and 7:30-9 p.m., *Avi Center Beer Social at Montana Ale Works*. This event is a fundraiser for the Friends of the Avalanche Center, \$35. Tickets here: <https://www.ticketriver.com/event/18542>

**EVENT at BRIDGER BOWL:** February 6, *King and Queen of the Ridge*. A day of hiking and skiing the Ridge as a fundraiser for the Friends of the Avalanche Center. Teams and individuals are welcome! More info here: <http://bridgerbowl.com/event/king-and-queen-of-the-ridge>

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

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

**Four Corners:** January 13, *Ihr Avalanche Awareness for Snowmobilers*, GVSA Groomer Building, 7-8 p.m.

**West Yellowstone:** January 9, 23, and 30, *Ihr Avalanche Awareness*, West Yellowstone Holliday Inn, 7-8:30 p.m.

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

**Cooke City:** January 16, *Ihr Avalanche Awareness*, Visitor's Center, 6-7:30 p.m.

January 30, *Companion Rescue for Snowmobilers*, <https://www.ticketriver.com/event/18078>

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

January 23 and 24, *Intro to Avalanches w/ Field Course*, <https://www.ticketriver.com/event/18441>

### *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.

### *Advanced Avalanche Workshop w/ Field Course*

January 27, 28, and 30: <https://www.ticketriver.com/event/16862>

Course content includes: snowpack metamorphism, the mechanics of avalanche failure and fracture, and decision-making. Different topics are covered each evening session. The field session includes snowpack analysis and avalanche rescue scenarios.