GNFAC Avalanche Advisory for Thu Dec 24, 2015

Good morning. This is Alex Marienthal with the Gallatin National Forest Avalanche Advisory issued on Christmas Eve, Thursday, December 24, at 7:30 a.m. Today's advisory is sponsored by **Gallatin County Search and Rescue** and **Edward Jones.** This advisory does not apply to operating ski areas.

Mountain Weather

Temperatures are in the single digits F this morning. Winds overnight were out of the W-SW at 10-15 mph with gusts reaching 20-30 mph. Since yesterday morning, Big Sky and Bridger Bowl received 4 and 8 inches of low density snow, respectively. Other areas recorded only a trace. Today, wind will continue to blow out of the southwest around 15 mph with gusts in the 20s. Temperatures will reach the teens F. If you've all been nice, the mountains will get a couple more inches of snow by Christmas morning.

Snowpack and Avalanche Discussion

Bridger Range Madison Range Gallatin Range

Lionhead area near West Yellowstone Cooke City

Light snow and calm wind the last couple days have provided a break for our unstable snowpack. However, the avalanche danger remains elevated. Last night's low density snow totaled .1" of snow water equivalency (SWE). This will make loose snow avalanches possible, which may be enough to knock you over or trigger a larger avalanche. In the past week, there were multiple avalanche warnings and a fatality near Cooke City (video, photo). We continue to get observations of avalanches and unstable snow in all mountain ranges. Natural and human triggered avalanches are all the evidence we need to know that it is possible to trigger an avalanche. In the Bridger Range, avalanches that failed on weak faceted snow surround Saddle Peak (photo). Isolated areas of stronger snow have been found in the mountains around Bozeman, which just means there is more variability and stability assessments can be trickier (video).

My partner and I visited Beehive Basin yesterday where we witnessed two recent natural avalanches and had collapsing and "whumphing" in most open areas that we crossed (video). This was enough evidence to entirely avoid avalanche terrain and runout zones for the day. It is possible to trigger an avalanche from low angle terrain and runout zones. A lot of the avalanches over the last couple weeks were remotely triggered from low angle terrain (photo, photo, photo), including the one that resulted in a fatality near Cooke City last Saturday. The ability to remotely trigger a slide means careful route finding is essential.

Avalanches on weak faceted snow have occurred naturally and have been triggered after light snowfall and moderate wind. It has not taken much to tip the scales. The dump that <u>Avalanche Santa Lee</u> promised has gradually been delivered over the last two weeks. This snow has formed a slab and added weight to a weak snowpack to create dangerous avalanche conditions. As the snowpack gets deeper it may become more difficult to trigger an avalanche, but the consequences are higher (video).

Careful route-finding and snowpack assessment are required if you plan to travel in avalanche terrain. Human triggered avalanches are likely and natural avalanches remain possible. Today, the avalanche danger is rated **CONSIDERABLE** on all slopes throughout our forecast area.

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, 1hr 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, *1hr 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, *1hr 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.