

## **GNFAC Avalanche Advisory for Mon Dec 22, 2014**

Good morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Monday, December 22 at 7:30 a.m. Today's advisory is sponsored by [Alpine Orthopedics](#) and [Northern Lights Trading Company](#). This advisory does not apply to operating ski areas.

### Mountain Weather

Since yesterday morning most mountain locations picked up 6-8 inches of high density snow with the exception of the Bridger Range which picked up 2 inches. This morning an unsettled northwest flow is producing snow showers in mountains near Big Sky which have received three inches since midnight. Currently, temperatures are in the upper teens to low twenties F and winds are blowing 15-25 mph out of the west-northwest with ridgetop gusts reaching 30 mph. Today, a northwest flow will remain over the area producing light snow showers with an additional 1-2 inches possible by this afternoon. Temps will remain in the upper teens to low twenties F and winds will continue to blow 15-25 out of the west-northwest. A weak ridge of high pressure will gradually build producing quiet weather tonight and tomorrow.

### Snowpack and Avalanche Discussion

Gallatin Range Madison Range Lionhead area near West Yellowstone Cooke City

Wild weather arrived yesterday on the coattails of the official first day of winter - pushing the snowpack past its breaking point in many places. Natural avalanches resulted in two close calls in the Northern Gallatin Range. Both incidents involved ice climbers. A party climbing on Killer Pillar in the Flanders drainage was nearly hit when an avalanche released above their climb. A second party on Silken Skein Falls narrowly escaped a slide that released above where they were climbing (note: this is the same slidepath that killed Guy Lacelle in December 2009). Natural avalanches were also reported on Mt. Blackmore.

These slides were the result of strong winds and a powerful loading event that deposited at least 1" of SWE over the past 48 hours in the mountains south of Bozeman ([Shower Falls Snotel](#), [Carrot Basin Snotel](#)). The mountains around Cooke City took the top spot receiving 1.7" of SWE in the past 48 hours ([Fisher Creek Snotel](#)). This rapid and heavy load has been deposited on a snowpack structure prime for producing avalanches ([video](#), [photo](#)).

Yesterday, Doug and I rode up Buck Ridge south of Big Sky and found rising instability. New snow and strong winds were adding stress to buried weak layers which propagated easily in our stability tests ([video](#), [photo](#)). Skiers outside of Cooke City found a deeper and stronger snowpack, but the sheer volume of snow combined with strong winds in this area will keep the snowpack on edge.

Today, I expect touchy conditions on all slopes, especially those that have received a wind load. Travel in avalanche terrain is not recommended and avalanche runout zones should be avoided.

For this reason the avalanche danger is rated **HIGH** on all wind loaded slopes. Non-wind loaded slopes have a **CONSIDERABLE** avalanche danger.

Bridger Range

The Bridger Range has received less snow than the southern mountains, but a few inches here and there are starting to add up. Over the past 48 hours Brackett Creek Snotel site has recorded .7" of SWE, which is likely the result of 3-4 inches of high density snow. Moderate winds out of the west-northwest will transport this new snow onto upper elevation, leeward slopes forming a fresh batch of wind slabs. This problem will be especially dangerous in steep, high consequence terrain. Slopes that have not been wind loaded still hold the potential for avalanches due to a layer of surface hoar and near surface facets now buried by the new snow. It's always worth digging a quick snowpit to assess the snowpack structure before committing to steeper slopes.

Today, human triggered avalanches are likely on wind-loaded slopes which have a **CONSIDERABLE** avalanche danger. Non-wind loaded slopes have a **MODERATE** avalanche danger.

Doug 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.

### **AVALANCHE EDUCATION and EVENTS**

Take a look at our **Education Calendar** for all our classes being offered.

**Snowmobiler Rescue Course**, Cooke City, December 27, 0800-1200. Register here:  
<https://www.ticketriver.com/event/13721>