

GNFAC Avalanche Forecast for Thu Feb 16, 2012

Good morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on, Thursday, February 16 at 7:30 a.m. **Mystery Ranch**, in partnership with the **Friends of the Avalanche Center**, sponsors today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

Clear skies overnight helped drop temperatures into the single digits to low teens F this morning. The recent period of abnormally calm winds may be ending. This morning westerly winds were averaging 10-15 mph with gusts in the 20s except in the Bridger Range and Hyalite Canyon where ridgetop winds were blowing 20-35 mph. Today, temperatures will warm into the high teens and low 20s F. Westerly winds will blow 10-15 mph with gusts of 20-30 mph. Tonight, moisture will descend from the northwest and produce an inch or two of new snow by tomorrow morning.

Snowpack and Avalanche Discussion

The mountains around Cooke City:

During dry, clear weather last week, the snow surface formed a new weak layer which is now buried about 1 foot deep. Recent natural avalanche activity occurred on this layer ([photo1](#), [photo2](#)). Slopes receiving wind-blown snow will be the best places to trigger avalanches on this layer. Fortunately this instability is easy to assess since it is not buried deeply.

Weak snow near the ground remains a concern. Recent avalanches have not broken on this layer, but it remains a serious concern because avalanches occurring on this layer will be hard to trigger, difficult to predict, and potentially deadly. This situation is a "low probability, high consequence" scenario, and not enough time has passed for me to feel comfortable ignoring this layer. As a snowmobiler I would be boondocking today not hill climbing. As a skier I wouldn't be skiing slopes much steeper than 30 degrees and avoiding any wind loaded areas. For today, a **CONSIDERABLE** avalanche danger exists on wind loaded slopes. All other slopes have a **MODERATE** danger.

The southern Madison and southern Gallatin Ranges and the Lionhead area near West Yellowstone:

In the southern Madison and Gallatin ranges and areas near West Yellowstone, there have been many avalanches this season. Unfortunately the snowpack structure responsible for this avalanche activity hasn't changed much. During the last 6 days, light snowfall has not stressed the snowpack enough to get avalanches ([video](#)). Winds have been more calm in these areas than in the northern half of the advisory area. Until winds increase or more snow falls, triggering an avalanche is not likely but remains possible. Today the avalanche danger is **MODERATE**.

The Bridger, northern Madison and northern Gallatin Ranges:

Plenty of weak snow exists in the mountains near Big Sky and Bozeman but there has been less snowfall and fewer avalanches in these areas. Two days ago Eric found stable conditions on Mt Ellis and Doug found stable conditions in Beehive and Bear Basins. Although the snowpack is weak in many places, it is not unstable because it does not have a load. On Friday last week in the Bridger Range on Sacajawea Peak, I found depth hoar near the ground and near-surface facets buried only a few inches deep ([video](#)). In Hyalite the snowpack is

generally stronger but has this layer of near surface facets. Westerly winds increased mostly in the Bridger and northern Gallatin ranges. With some fresh wind slabs potentially resting on small facets, heightened avalanche conditions exist on specific terrain features. This avalanche problem is not widespread yet. For today, the avalanche danger is **MODERATE** on all wind loaded slopes and on all slopes steeper than 35 degrees. Non wind loaded slopes less than 35 degrees have a **LOW** avalanche danger.

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.

NRCS Snowpack Summary Graphs

For the current state of our snowpack depth (about 70% of average on the Gallatin), check out these two graphs generated by NRCS ([graph 1](#), [graph 2](#)).

EDUCATION

Bozeman - TONIGHT

FREE 1-hour Avalanche Awareness at REI at 6:30 p.m. For more information call REI at 406-587-1938.

West Yellowstone

FREE 1-hour Avalanche Awareness for snowmobilers, Saturday Feb. 18th at the Holiday Inn. 7-8 p.m. in the room next to the bar.