

GNFAC Avalanche Advisory for Mon Feb 18, 2013

Good morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Monday, February 18 at 7:30 a.m. **World Boards** and **Lone Peak Brewery** sponsor today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

Over the past 24 hours the Bridger Range has received ten inches of new snow. The northern Gallatin Range has picked up 6-8 inches and the mountains around Big Sky squeezed out 3-4 inches. The mountains near West Yellowstone and Cooke City picked up 1-2 inches. Currently, it's still snowing lightly in the northern mountains and temperatures are in the single digits to low teens F. Winds are blowing out of the WNW at 5-15 mph. Today, snow will end by late morning and temperatures will warm into the 20s under partly to mostly cloudy skies. Winds will stay light and should shift to the WSW by this afternoon. No major accumulations are expected today into tomorrow.

Snowpack and Avalanche Discussion

Bridger Range

The Bridger Range has received 16 inches of new snow over the past 48 hours. Although winds have been relatively light during this storm, isolated wind slabs should be expected on leeward slopes below the ridgeline. A more common problem today will be loose snow avalanches. On steeper slopes, fast moving sluffs will carry enough volume to push or potentially bury a skier or rider.

Today, human triggered avalanches are likely on slopes steeper than 35 which have a **CONSIDERABLE** avalanche danger. Less steep slopes have a **MODERATE** avalanche danger.

Northern Gallatin Range

The northern Gallatin Range has the weakest snowpack in our advisory area. A layer of facets buried 2-3 feet deep can be found on most aspects and elevations. On some slopes this layer exists near the ground while on others it can be found mid-pack. These buried weak layers are being stressed by the eight inches of new snow (.7 inches of SWE) that has accumulated over the past 48 hours. A secondary concern will be fresh wind slabs. In upper elevation terrain, specifically on slopes leeward to west winds, soft slabs will easily fail under the weight of skier or rider.

Today, wind slabs and buried weak layers make human triggered avalanches likely and the avalanche danger is rated **CONSIDERABLE**.

Madison Range Southern Gallatin Range

Over the past 48 hours the mountains around Big Sky have picked up 7-10 inches of new snow while the southern Madison and southern Gallatin Ranges have picked up 4-6 inches. This healthy shot of snow arrived with moderate to strong WNW winds which calmed and switched to the SW mid day yesterday. Wind loading occurred at upper elevations, predominately on slopes leeward to west winds. Today, pockets of wind drifted snow will remain sensitive to human triggers.

A secondary concern is a layer of facets buried 2-3 feet deep. Yesterday, I toured up Yellow Mountain and found this layer in multiple snowpits. This layer propagated with consistency during stability tests ([photo](#)). Skiers in the southern Madison Range found similar conditions up the Taylor Fork yesterday. Also, a snowmobiler remotely triggered a slide on this layer near Sage Peak on Friday. This is becoming a low probability high consequence situation that needs to be evaluated carefully before committing to avalanche terrain.

Today, the avalanche danger is rated [**CONSIDERABLE**](#) on steep - wind loaded slopes. All other slopes have a [**MODERATE**](#) avalanche danger.

Lionhead area near West Yellowstone Cooke City

The main concern in the mountains near West Yellowstone is a layer of facets buried 1-2 feet deep. This layer is most problematic on mid to low elevation slopes where the snowpack is a meter deep or less.

The main concern in the mountains around Cooke City is a layer of facets found on mid-elevation slopes, especially on south and east aspects. Recently, this layer produced collapsing and cracking under the weight of a skier ([photo](#)) - bulls eye data for instability. The possibility remains for a skier or rider to trigger and isolated wind slab in steep-upper elevation terrain.

Today, for the Lionhead Area near West Yellowstone and the mountains near Cooke City – human triggered avalanches are possible and the avalanche danger is rated [**MODERATE**](#).

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 or call us at 587-6984.