

## **GNFAC Avalanche Forecast for Fri Feb 18, 2011**

Good morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Friday, February 18, at 7:30 a.m. Northern Lights Trading Company in cooperation with the Friends of the Avalanche Center, sponsors today's advisory. This advisory does not apply to operating ski areas.

### Mountain Weather

Since yesterday morning the mountains near Cooke City and West Yellowstone received an additional 1-2 inches of snow. Most areas received strong winds which were blowing 15-45 mph from the SSW this morning except in the Bridger Range where winds calmed overnight and were blowing 10-15 mph. Temperatures were in the low teens and high single digits F this morning. A moist SW flow will bring more snow by tomorrow morning with the southern parts of the advisory area receiving 2-3 inches and a trace to 1 inch further north. Today temperatures will be in the upper teens and low 20s F. Winds should decrease slightly and blow 10-30 mph.

### Snowpack and Avalanche Discussion

The Bridger, Madison and Gallatin Ranges, the Lionhead area near West Yellowstone, the mountains around Cooke City and the Washburn Range:

The main event continues to be wind, which combined with new snow, has created many soft wind slabs. Yesterday on Mt Blackmore in Hyalite Canyon I found wind speeds that were perfect for transporting snow and forming fresh wind slabs. These wind slabs readily cracked under my skis. Similar conditions were observed by the Bridger Bowl Ski Patrol, Moonlight Basin Ski Patrol, and an observer in Cooke City. In all cases these slabs were most reactive on slopes steeper than 35 degrees. Unfortunately winds continued overnight and will keep these fresh wind slabs sensitive today.

A secondary concern is that many of these wind slabs formed by SW winds are resting on older hard slabs formed during extremely high winds early this week and last weekend. One of these hard slabs was responsible for a fatality on Monday on the W side of the Bridger Range in Truman Gulch. Triggering a fresh wind slab may trigger a hard slab underneath it though this possibility decreases each passing day.

One concern in the northern Gallatin Range near Hyalite Canyon is a weak layer formed at the beginning of February now buried 1.5-2 ft deep ([snowpit](#)). I found it on Mt Blackmore and skiers in the Flanders drainage nearby found an identical layer which produced very similar stability test results. See a [video](#) of their results and contrast this with Doug's stability test and [video](#) from 10 days ago when it took much less force to break. This layer does not have enough stress from new snow to cause widespread problems unless it is stressed by a heavy wind load. This layer may also persist in pockets in the Bridger Range though it has healed during recent warm weather on many slopes.

Regardless of snowpack structure and potential weak layers which can vary widely, the main problems are fresh wind slabs and slopes loaded by strong SW winds. For today the avalanche danger is rated [CONSIDERABLE](#) on all wind loaded slopes. On slopes without a wind load, the avalanche danger is rated [MODERATE](#).

Eric 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.

### 3<sup>rd</sup> Annual Montana Ale Works Fundraiser

Tuesday, March 1 at 6:00 p.m. in the Railcar at Ale Works in Bozeman

Cost: \$25 to benefit the Friends of the Avalanche Center

Details: Chef Roth at Montana Ale Works is creating tapas style servings that will be paired with select beer from Lone Peak Brewery. More information [HERE](#).

### Upcoming Education

Saturday, February 19, West Yellowstone

The Friends of the Avalanche Center will offer a FREE Basic Avalanche Awareness Workshop at the Holiday Inn in West Yellowstone, MT. 7-8 p.m. (next to the bar) Topics include: terrain, mountain weather, snowpack, rescue procedures, and recent avalanches in local riding areas.