

## **GNFAC Avalanche Advisory for Tue Mar 23, 2010**

Good Morning. This is Doug Chabot with the Gallatin National Forest Avalanche Advisory issued on Tuesday, March 23, at 7:30 a.m. **Jeff King at Edward Jones**, in cooperation with the **Friends of the Avalanche Center**, sponsors today's advisory. This advisory does not apply to operating ski areas.

### Mountain Weather

Snowfall in the last 24 hours measured 7-9 inches in the Bridger and northern Gallatin Ranges, three to four inches in the northern Madison Range and Cooke City area, and only an inch elsewhere. Mountain temperatures are currently in the mid teens with northwest winds blowing 15-20 mph. Snow showers will drop another inch in the northern mountains before tapering off later this morning. Skies will become partly cloudy but fully clear tonight as winds remain moderate from the west-northwest.

### Snowpack and Avalanche Discussion

*The Bridger, northern Gallatin and northern Madison Ranges, the mountains around Cooke City and the Washburn Range:*

Bridger Bowl got seven inches and Shower Falls in Hyalite shows nine inches of dense, 10-13% snow. The mountains around Big Sky and Cooke City got a few inches less, but all snow fell onto a variety of surfaces-ice crusts on south facing slopes to small grained facets on other aspects. Wind speeds have been strong enough to load slopes near the ridgetops. Since the new snow will bond poorly to the old surface, I expect new snow avalanches today. Yesterday, the Big Sky Ski Patrol ski cut 4-6 inch pillows. More snow last night will make these pillows deeper and even easier to trigger.

About 1 to 1 ½ feet under the snow surface is another layer of faceted snow that is prone to break. This weak layer is widespread. The new snow has not added enough stress to create natural avalanches on this layer; however skier or snowmobile triggered slides are possible. Wind-loaded slopes are the exception, and consequently the avalanche danger is rated **CONSIDERABLE**. For slopes not affected by the wind, the danger is rated **MODERATE**.

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

The mountains from Big Sky to West Yellowstone only got an inch of new snow. But the snowpack still has lingering troubles. Two layers concern us: a surface hoar band 1 ½ to 2 feet deep and facets at the ground. On Sunday, a rider in the Gravelly Range was buried in a small slide on a north facing, 35-37 degree slope. Although outside our forecast area, the snowpack is quite similar to the southern Madison Range. The avalanche was 100 feet wide, 75 feet vertical and broke 1 ½ feet deep on a visible stripe of surface hoar. The rider was fully buried, but popped his arm out and waved frantically-his head was uncovered in 30 seconds and luckily he was uninjured. ([photo1](#), [photo2](#), [photo3](#)).

Weak layers can be found on most slopes although their relative strength is quite varied. As this avalanche shows, there are still hills where a rider or skier can trigger a slide. Yet on other slopes the layers have gained strength and are not as unstable. This variability is tricky to get a handle on; in fact you'll have to dig on every slope to come up with a firm decision. This isn't always practical for snowmobilers and that's why the Gravelly group stuck to smaller slopes, took turns riding the hill and closely watched each other. Even a small slide like this could've been deadly if his partners were out of sight around the corner.

Given widespread weak layers, variability and recent avalanche activity, the avalanche danger is rated **MODERATE**.

### **New Beacon Park**

The Friends of the Avalanche Center used a donation from **Yellowstone Adventures** to purchase an avalanche beacon training park in West Yellowstone. You can search for pre-placed beacons switched on/off by a control panel. Look for it by the orange snow fence just south of the old airport ([photo](#)).

I will issue the next advisory tomorrow morning at 7:30 a.m. If you get out in the backcountry let us know what you find. You can reach us at 587-6984 or email us at [mtavalanche@gmail.com](mailto:mtavalanche@gmail.com).