

## **GNFAC Avalanche Forecast for Tue Mar 21, 2017**

Good Morning. This is Doug Chabot with the Gallatin National Forest Avalanche Advisory issued on Tuesday, March 21<sup>st</sup> at 7:15 a.m. Today's advisory is sponsored by [\*\*Yellowstone Arctic Yamaha and Yamaha Motor Corp\*\*](#) in partnership with **the Friends of the Avalanche Center**. This advisory does not apply to operating ski areas.

### Mountain Weather

At 5 a.m. under partly cloudy skies temperatures are in the high 20s F. Since yesterday morning Cooke City has received 5" of new snow, the Bridger Range has 3" and all other areas have 1-2". Winds are SW at 15-25 mph with the Bridger ridge getting SE winds at 10-15 mph. Today will become mostly cloudy and temperatures will warm into the 40s as the freezing line climbs to 8,500 feet. By morning, scattered snow showers will drop a trace to 1" in the northern mountains and 1-2" in the southern ranges.

### Snowpack and Avalanche Discussion

Bridger Range Madison Range Gallatin Range Cooke City

Lionhead area near West Yellowstone

New snow, above freezing temperatures, winds and a moist snowpack create a messy avalanche forecast. There are many variables changing hourly that are near impossible to keep track of, but all is not hopeless. Assessing stability is a step-by-step process. Under the new snow, the old surface is either wet or frozen. At the lowest elevations the snow is wet and unsupportable and a person will sink to the ground. Unsuitable snow is also unstable and given today's forecasted temperatures of 40F, wet avalanche danger is a concern. Conversely, a thick frozen crust is strong and can support skiers and sledgers making wet avalanche danger moot. At higher elevations we find cooler temperatures and dry snow that present two avalanche concerns: wind-loading of the new snow and cornices breaking. The transition from wet to dry conditions is gradual and obvious which helps our decision-making regarding these very different dangers.

Yesterday, Alex and I rode into Taylor Fork and took down the weather station. The trailhead is melting out and we were forced to make a few turns in the sage brush to link snow patches. Low on the trail my snowmobile was swallowed in wet snow when I inadvertently rode off the packed path. The higher we climbed the better conditions became. Above treeline we were riding on a 3" thick melt-freeze crust under the new snow that easily supported us and made for good stability. Our snowpit at 9500' was moist under this ice crust and temperatures within the snow were barely below freezing (-1C). Fortunately, the ice crust is keeping the snowpack stable, for now. We made a [video](#) outlining these concerns.

Snow conditions and stability change drastically with elevation and time. For today, throughout our advisory area, the avalanche danger is rated [\*\*MODERATE\*\*](#) for both wet and dry avalanches.

### **CORNICE DANGER**

Cornices are extra big this year ([photo](#)). These overhanging behemoths can break far from the edge and can trigger large avalanches like this one observed last week in the Bridger Range ([photo](#)).

I will issue the next advisory tomorrow morning by 7:30 a.m.

We rely on your field observations. Send us an email with simple weather and snowpack information along the lines of what you might share with your friends: How much new snow? Was the skiing/riding any good? Did you see any avalanches or signs of instability? Was snow blowing at the ridgelines? If you have snowpit or test data we'll take that too, but this core info is super helpful! Email us at [mtavalanche@gmail.com](mailto:mtavalanche@gmail.com) or leave a message at 406-587-6984.