

## **GNFAC Avalanche Forecast for Sun Apr 4, 2010**

Good Morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Sunday, April 4, at 7:30 a.m. **Team Bozeman**, in cooperation with the **Friends of the Avalanche Center**, sponsors today's advisory. This advisory does not apply to operating ski areas.

### Mountain Weather

Over the past 24 hours, a fast moving storm system dropped another 4-6 inches of snow over the mountains of our advisory area. This storm was accompanied by strong S-SW winds which blew 20-30 mph during the storm and gusted into the 40's with the frontal passage. Cold air moved in behind this storm producing some of the coldest temperatures we have felt in a weeks. Currently, mountain temperatures are ranging from 5-10 degrees F and winds are blowing at 5-15 mph out of the W-SW. Today, temperatures will struggle into the low thirties under mostly cloudy skies and we could see a few isolated snow showers in the mountains. Another storm system will be moving into southwest Montana starting Monday night.

### Snowpack and Avalanche Discussion

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

Yesterday, my partner and I toured into the Flatirons in the northern Bridger Range and found more snow than we anticipated. By 9:30 am there was already eight inches of new snow and a by noon that eight had crept closer to twelve. This high rate of precipitation intensity, close to an inch of snow an hour, forced us to avoid steep slopes and avalanche run out zones. We managed to dig two pits, one on a north facing aspect and one on an east facing aspect. The results were promising and we gained some confidence in the buried weak layers 1-3 feet below the surface as well as the interface between the new and old snow. We witnessed no new avalanche activity and eventually felt comfortable skiing non-wind loaded slopes between 30 and 35 degrees.

This, however, does not indicate that buried weak layers don't have the potential to produce avalanches and that all slopes are stable. Along with this most recent intense blast of snow came strong S-SW winds, which loaded many leeward slopes and starting zones. Both the Moonlight Basin and Big Sky Ski Patrols reported triggering several small to medium size avalanches with both ski cuts and explosives. The Bridger Bowl Ski Patrol reported similar conditions during control work. This comes a day after a snowmobiler triggered an avalanche near Cooke City that propagated close to 1,000 feet across, a prime example that weak layers in the snowpack are struggling to support the new load.

This fast moving storm dropped 4-6 inches of snow in a short period of time equaling close to .5 inches of water ([SWE](#)). This brings the SWE total to well over an inch of water over the past three days throughout our advisory area, a heavy burden for the snowpack to support. With both natural and human triggered avalanches being reported before this recent blast of snow, you can be confident that triggering an avalanche remains a real possibility. For today, human triggered avalanches are probable on all wind loaded slopes and the avalanche danger is rated [CONSIDERABLE](#). All slopes that have not received wind loading have a [MODERATE](#) avalanche danger.

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).