

[GNFAC Avalanche Advisory for Thu Jan 19, 2012](#)

Good morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Thursday, January 19 at 7:30 a.m. This advisory is sponsored by the **Yellowstone Club Community Foundation** in partnership with the **Friends of the Avalanche Center**. This advisory does not apply to operating ski areas.

The Gallatin National Forest Avalanche Center is issuing a **Backcountry Avalanche Warning for the Lionhead area near West Yellowstone and the mountains around Cooke City**. Heavy snowfall, high winds and an extremely weak snowpack are causing unstable conditions. **Today the avalanche danger is HIGH on all slopes**. Areas of unstable snow exist. Natural and human triggered avalanches are likely. **Avalanche terrain including avalanche run out zones should be avoided**.

This warning will either be terminated or updated by 6:00 AM on January 20, 2012

Mountain Weather

Since yesterday morning the Lionhead area near West Yellowstone and the mountains near Cooke City received about 1 foot of new snow (1.0 inch of [SWE](#)). Other areas remained dry or received an inch of snow. All areas, however, received very strong westerly winds averaging 30-40 mph and gusting 60-80 mph. Temperatures have been rising over the last few days and were hovering near 20 degrees F this morning. Today temperatures will be in the low 20s F. Winds should ease a little and blow 20-40 mph from the W and SW. By tomorrow morning the mountains near Cooke City and West Yellowstone will receive another 12 inches of snow and the mountains near Big Sky will get 6-8 inches. Near Bozeman, 2-4 inches of snow will fall but more is definitely possible.

Snowpack and Avalanche Discussion

The Lionhead area near West Yellowstone and the mountains around Cooke City:

In the last 24 hours the Lionhead area near West Yellowstone and the mountains near Cooke City received 1 inch of [snow water equivalent](#) (SWE) (about 1 foot of snow). We use this measurement of precipitation because it tells how much weight was added to the snowpack. More weight means more stress, and 1 inch of SWE puts a lot of stress on the snowpack. On Lionhead the snowpack is incredibly weak on all slopes. Under the stress of new snow, the snowpack will break and avalanche. Near Cooke City the snowpack is more variable and some slopes have relatively strong snow; however, many have very weak snow that will also avalanche. In these conditions avalanches can be triggered from relatively flat terrain underneath steeper slopes and avalanche run out zones should be avoided. Today both natural and human triggered avalanches are likely and the avalanche danger is HIGH.

The Bridger, Madison and Gallatin Ranges:

The Bridger, Madison and Gallatin Ranges did not receive the snowfall that fell further south. However, these areas received very strong winds that stripped snow from some slopes and formed hard wind slabs on others. Few slopes have been untouched by these winds. Yesterday on Mt. Blackmore fresh wind slabs were my primary concern. In other areas these wind slabs are the primary concern but with an extremely weak snowpack ([video](#), [photo](#)), avalanches will break deeper in the snowpack or at the ground. Today the avalanche danger is CONSIDERABLE on wind loaded slopes steeper than 35 degrees. All other slopes have a MODERATE

avalanche danger. Heads up: the avalanche danger could rise rapidly if heavy snowfall develops today, and avalanches could become likely even on non-wind loaded slopes.

I 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.

Events/Education

Bozeman

[Introduction to Avalanches with Field Course](#). MSU, SUB Ballroom C, 7-9:30 p.m. Jan 25 and 26 with a field day Jan 28.

Great Falls

[1-hr Avalanche Awareness Lecture](#) TONIGHT, January 19, 7-8 p.m. at Greenup Performance

West Yellowstone

[1-hr Avalanche Awareness Lecture](#) Saturday, January 21, 7-8 p.m. at West Yellowstone Holiday Inn

Billings

[Snowmobiler Introduction to Avalanches with Field Course](#). Lectures on Tuesday, January 24 from 6-9 p.m. at Hi-Tech Motor Sports with an all day field session in Cooke City on Sunday, Jan 29. PRE-REGISTER BY JAN 23 at Hi-Tech!! Register with Sue at 406-652-0090; hitech@hi-techmotorsports.com.