GNFAC Avalanche Advisory for Sun Dec 18, 2016

Good Morning. This is Alex Marienthal with the Gallatin National Forest Avalanche Advisory issued on Sunday, December 18th at 7:15 a.m. Today's advisory is sponsored by **Wisetail** and **Alpine Orthopedics**. This advisory does not apply to operating ski areas.

Mountain Weather

Temperatures at 4 a.m. are teens to single digits below zero F, and the mountains did not receive any new snow over the last 24 hours. Strong wind is the weather highlight this morning. In the Bridger Range wind is 30-40 mph out of the northwest with gusts near 50 mph. Wind elsewhere is out of the northwest at 15-25 mph with gusts of 30-40 mph. Temperatures today will rise to the low teens F this afternoon. Wind will be out of the west to northwest at 20-35 mph. Skies will be partly cloudy today and snow showers are expected tomorrow evening.

Snowpack and Avalanche Discussion

Cooke City Southern Gallatin Range Southern Madison Range

Lionhead area near West Yellowstone

The avalanche warning in Cooke City expires this morning. Travel advice today does not change despite a lower likelihood of avalanches. An unstable snowpack with facets near the ground was loaded with almost 3" of snow water equivalent (SWE) on Thursday and Friday, and strong westerly winds continue to form drifts of snow on leeward slopes. Travel cautiously and avoid avalanche terrain today, including runout zones.

Yesterday near Cooke City, snowmobilers reported triggering slabs of new snow from flat terrain, and many large natural avalanches were observed that broke deep on facets near the ground on easterly through north aspects. See our **photo page** for a look at these slides.

Wind slabs will be easy to trigger today and deeper avalanches are possible. Small slabs or loose avalanches in the new snow could trigger large avalanches on weak facets near the ground. Eric and I observed this weak layer a few days ago in the southern Madison Range and Lionhead area (**video**, **video**). We avoided slopes steeper than 30 degrees despite a lack of obvious signs of instability.

Today, the avalanche danger is HIGH on wind loaded slopes and slopes steeper than 35 degrees and CONSIDERABLE on less steep, non-wind loaded terrain.

Bridger Range Northern Gallatin Range Northern Madison Range

Strong wind over the last 24 hours will make wind slabs easy to trigger today. Small slabs or loose avalanches in the new snow could trigger larger avalanches on weak facets near the ground.

Avalanches on weak facets near the ground are possible to trigger today. This persistent weak layer can be tricky to assess. Avalanches on this weak layer have been triggered on slopes that were previously skied or controlled with explosives. Ski patrols have triggered large avalanches that broke on this layer over the last week (**photo**, **photo**, **photo**). Although there has not been any snowfall since Friday afternoon, strong wind continues to load a weak snowpack structure and keep this weak layer close to its tipping point. Deep avalanches on persistent weak layers are often associated with heavy wind-loading.

Conservative decision making is essential today and the avalanche danger is CONSIDERABLE.

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

Henderson Mountain Avalanche Fatality Report

The report on the December 11 avalanche fatality outside Cooke City is complete. You can read it **HERE**.

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 or leave a message at 406-587-6984.

Upcoming Events and Education

COOKE CITY

Every Friday and Saturday, **Weekly rescue training and snowpack update**, 6-7:30 p.m., location TBA.