GNFAC Avalanche Advisory for Sun Jan 5, 2014

Good morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Sunday, January 5 at 7:30 a.m. **Bountiful Table** and **Buck Products** sponsor today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

Over the past 24 hours the Bridger Range received 23 inches of new snow. The mountains around Big Sky including the northern Gallatin Range picked up 4-6 inches while the mountains around Cooke City and West Yellowstone picked up 1-3 inches.

Light snow showers will linger this morning, but will end by noon. At 4 a.m. temperatures are in the single digits above or below zero F, but will drop to ten below zero F or colder by this afternoon. Currently, winds are blowing 10-20 mph out of the WNW with localized gusts reaching into the thirties near Big Sky.

A weak ridge of high pressure will build over the area today and tomorrow producing calmer and drier conditions. Fortunately this cold snap will be short lived and temperatures will warm into the mid-teens to low twenties F by tomorrow afternoon.

Snowpack and Avalanche Discussion

Bridger Range

Have you ever seen snowfall intensity of five inches per hour? If you were in the Bridger Range yesterday, you did. Twenty inches fell in the Bridgers yesterday in less than 10 hours, with nine inches accumulating between 9-11 a.m. The density of this new snow was very low, averaging 3-4%, and as a result, did not add a tremendous amount of weight to the snowpack.

Today, the primary avalanche concern will be instability within the new snow. Lose snow avalanches, storm slabs and wind slabs will be easy to trigger today, specifically on slopes steeper than thirty degrees (**video**). Yesterday, my partner and I easily triggered small avalanches below the ridgeline north of the ski area. These slides stayed confined to the new snow, but picked up a lot of speed and volume as they moved downhill. Staying off steep slopes today will be the easiest way to manage this hazard.

A secondary concern will be triggering slides on faceted layers buried deeper in the pack. Fortunately, the snowpack in the Bridger Range has been getting stronger. However, an intense wind event on Friday loaded leeward slopes and slides within the new snow could trigger larger avalanches on deeper layers.

Today, the avalanche danger is rated **HIGH** on wind loaded slopes and slopes steeper than thirty five degrees. Less steep slopes without a wind load have a **CONSIDERABLE** avalanche danger.

Gallatin Range Madison Range

Lionhead area near West Yellowstone Cooke City

The mountains around Big Sky and West Yellowstone including the northern Gallatin Range have a poor snowpack structure. Facets near the ground continue to produce natural and human triggered avalanches.

This layer produced a fatal avalanche on New Year's Day in the northern Gallatin Range when two snowmobilers triggered a slide from low angle terrain below a steep slope (**photo**). Read the full accident report **HERE**.

In Beehive Basin near Big Sky yesterday, a group of skiers experienced cracking/collapsing and remotely triggered a small avalanche from 70 ft. away. They also observed recent avalanche activity on an east facing slope below the ridge that separates Beehive and Middle Basin (**photo**). In addition, the Big Sky Ski Patrol triggered large slides on wind loaded slopes during control work. These slides failed on facets near the ground producing crowns 3-5 feet deep.

On Friday, a skier observed multiple avalanches (**photo**) breaking on this layer near Mt Blackmore in the northern Gallatin Range including one that broke on a small wind loaded slope near the trail.

Slopes that have received a recent wind load will be the most prone to human triggered avalanches. However, buried facets are unforgiving and will produce avalanches on non-wind loaded slopes as well.

The mountains near Cooke City generally have a deeper snowpack that may lead to more stable conditions in the future. Unfortunately this area still has a layer of facets lurking in the snowpack 1-2 feet above the ground. Yesterday, a skier observed recent avalanche activity on an east facing slope near Mt. Republic (**photo**). A large slide was also observed on Scotch Bonnet Mountain north of Cooke City. While this area has a slightly stronger snowpack, new snow and wind will continue to produce unstable conditions.

Today, for the mountains around Big Sky, West Yellowstone and Cooke City - human triggered avalanches are likely on all slopes and the avalanche danger is rated **CONSIDERABLE**.

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

January 7, BILLINGS: Tuesday, 6:30-8:30 p.m. at High Mountain Recreation, **90-Minute Rescue Presentation.**

January 8, BOZEMAN: Wednesday, 6:30-8 p.m. at REI, **Sidecountry IS Backcountry** lecture.

January 9, BOZEMAN: Thursday, 6-7 p.m. at Mystery Ranch, **1-hour Avalanche Awareness** lecture.

January 9, HELENA: Thursday, 6:30-7:30 p.m. at Exploration Works, **1-hour Avalanche Awareness** lecture.

January 11, COOKE CITY: Saturday, 10 a.m. to 4 p.m., **Companion Rescue Clinic for Snowmobilers**, Pre-Registration is required. https://www.ticketriver.com/event/9445

January 11, WEST YELLOWSTONE: Saturday, 7-8 p.m. at Holiday Inn, **1-hour Avalanche Awareness** lecture.

More information our complete calendar of events can be found **HERE**.