GNFAC Avalanche Advisory for Mon Dec 16, 2013

Good morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued Monday, December 16 at 7:30 a.m. <u>Buck Products</u> and <u>406 Brewery</u> sponsors today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

Overnight a weak weather disturbance dropped a trace to one inch of snow in the northern Gallatin Range and mountains around Big Sky. At 4 a.m. temperatures are in the 20's F with the exception of Cooke City and West Yellowstone where temps are in the teens F. Winds are blowing 15-25 mph out of the WSW with localized gusts in the 40's. Today, temperatures will warm into the 30's F under partly to mostly cloudy skies. Winds will continue to blow 15-25 mph out of the WSW with stronger gusts along the ridgelines. Warm and windy conditions will continue through tomorrow. A significant weather change is on the horizon with snow and cold temperatures arriving Wednesday night into Thursday.

Snowpack and Avalanche Discussion

Bridger Range Madison Range Gallatin Range

Lionhead area near West Yellowstone Cooke City

Over the past three days numerous human triggered avalanches have been reported.

- On Friday, a skier was caught and partially buried on the Throne in the northern Bridger Range (photo).
- On Friday, a skier triggeredn and narrowly escaped being caught in a slide on a west facing slope in Beehive Basin.
- On Saturday, snowmobilers remotely triggered a large slide north of Ross Peak in the Bridger Range (photo, photo).
- On Saturday, a group of skiers experienced cracking/collapsing and triggered a slide in Cabin Creek in the Southern Madison Range.
- Yesterday, the Bridger Bowl Ski Patrol triggered medium sized avalanches on wind loaded slopes during control work and noticed new natural activity on the west side of the range.

This recent activity equates to 'bulls eye' data that the snowpack in many areas has the necessary ingredients to produce avalanches. Areas that had a shallow snowpack prior to the cold snap earlier this month are prime candidates for holding unstable snow conditions. A faceted layer about a foot off the ground seems to be the most problematic, though other buried faceted layers exist throughout the pack.

Today, the primary avalanche concern is wind slabs. Over the past 36 hours, strong winds out of the west/southwest have transported snow onto leeward slopes. In many areas these wind slabs rest over weak-faceted snow. It is easiest to trigger hard wind slabs where the snowpack is shallower, on the thinner margins of the slab. Steep rocky terrain, especially areas that have been capped by wind deposited snow, will be likely zones to produce avalanches.

Wind loaded slopes are the main concern today, but it still remains possible to trigger slides on non-wind loaded slopes. Any area that has a dense-cohesive layer resting over weaker snow is capable of producing avalanches (**photo**). Digging down to assess the snowpack structure is a cheap and easy insurance policy that could prevent

making a more expensive claim down the road.

Today, human triggered avalanches are likely on wind loaded slopes steeper than 35 degrees which have **CONSIDERABLE** avalanche danger. All other slopes have a **MODERATE** avalanche danger.

Doug 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

GARDINER: Thursday, December 19, 7-8 p.m. **Avalanche Awareness**, at the Yellowstone Association in Gardiner. Call Zachary for more info at: 406-848-2850.

WEST YELLOWSTONE: **Snowmobiler Intro to Avalanches w/ Field Course**; 19 and 20 December. Info and registration: https://www.ticketriver.com/event/7116

BOZEMAN: Saturday, December 21, 10:30-11:30 a.m. **FREE Avalanche Transceiver Workshop**, Bridger Bowl, next to the rental shop at Jim Bridger Lodge. NO registration required. Just show up.