GNFAC Avalanche Advisory for Wed Mar 5, 2014

Good Morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Wednesday, March 5 at 7:30 a.m. A **Montana FWP Recreation Trails Grant** sponsors today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

In the last 24 hours no snow fell except about an inch that fell near Cooke City yesterday morning. This morning temperatures were in the mid 20s F and ridge top winds were averaging 15-20 mph gusting to 30 mph from the W and SW. Today's weather will be warm and windy with temperatures that should warm into the low 30s F. By this afternoon winds should increase to 20-50 mph from the S and SW. Snowfall will return late this afternoon mostly in the southern areas which should get 5 inches while the northern areas should get 1-2 inches.

Snowpack and Avalanche Discussion

Cooke City

The mountains around Cooke City have gotten a lot of snow and there have been very few days without snowfall. The Fisher Creek SNOTEL site is far above the 30 year median (chart of current and median SWE amounts). During breaks in the weather natural avalanches have been observed on all aspects. Avalanches that happen on their own are a clear sign that skiers or snowmobilers can trigger avalanches on other slopes. Also, weak layers near the ground may produce large avalanches. The way to trigger one of these is to ride near rocks or other places where the snowpack is relatively thin (**video**). For today, human triggered avalanches are likely. With winds expected to increase a few natural avalanches are also possible. For these reasons the avalanche danger is rated **CONSIDERABLE**.

Gallatin Range Madison Range

Lionhead area near West Yellowstone

In the mountains south of Bozeman, near Big Sky, and near West Yellowstone, snowfall has slowly buried a weak layer of facets 2-3 feet deep (photo of this layer) that formed in late January. This layer has gained a lot of strength on most slopes. HOWEVER, it has remained weak on isolated slopes as seen by a few human triggered avalanches last week.

A few slides were seen yesterday in Hyalite (**avalanche1**, **avalanche2**, **avalanche3**) that broke in steep, rocky areas about 2-3 feet deep. One of these occurred on a slope that produced an avalanche in mid-January. I suspect these slopes also had the additional weight of wind-blown snow.

The best place to get an avalanche today will be wind loaded slopes where the wind slabs alone can slide or avalanches may break deeper on buried facets. Find a slope without a recent wind load and perform a stability test nearby. You only need to dig about 3 feet deep, and do this for every slope where you will ride. If snowmobiling near Lionhead, know that a few slides broke near the ground about a week and a half ago. Big slides like these can run further than you think. Make sure to park in a safe area if your buddies are climbing slopes above you. For today with many stable slope and some unstable ones, triggering an avalanche is possible and the avalanche danger is rated **MODERATE**.

The Bridger Range

The main issue in the Bridger Range has been wind. No surprise. A skier triggered a wind slab on a N aspect above Frazier Lake on Sunday. Another skier observed a natural avalanche near Arrowhead Peak on a SE aspect on Monday. This slide is notable because it broke 250 feet wide. His stability tests showed the main weakness to be the new/old snow interface. However any time avalanches fracture over wide areas it gets our attention. Fortunately many other slopes are stable as a skier found over the weekend by dropping large cornices on several slopes without producing avalanches. Watch for fresh wind slabs and evaluate the new/old snow interface. Human triggered avalanches remain possible and today the danger is rated **MODERATE**.

Eric 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.

BACKCOUNTRY SKIERS AND RIDERS NEEDED FOR MSU SURVEY

This project aims to collect GPS location information and survey responses from backcountry skiers and riders to better understand what types of terrain decision we make. The focus is on backcountry skiers and riders of all abilities and experience. You need not be an expert backcountry skier to participate in this research. For more information and to sign up: www.montana.edu/snowscience/tracks