GNFAC Avalanche Forecast for Sat Mar 8, 2014

Good Morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Saturday, March 8 at 7:30 a.m. **Lone Peak Brewery** and **Ticket River** sponsor today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

Overnight no new snow fell. This morning temperatures are in the upper teens to low 20s F and winds are blowing 10-25 out of the WSW. Today, skies will be mostly clear and temperatures will warm into the high 30s to low 40s F. Winds will blow 10-25 out of the WSW this morning, but will gradually increase with ridge top gusts reaching 40 mph by this afternoon. The current ridge of high pressure will begin to break down this evening and skies will become mostly cloudy by tomorrow morning. However, no precipitation is expected over the next 24 hours.

Snowpack and Avalanche Discussion

Cooke City

It's hard to imagine that the mountains around Cooke City have not received significant snowfall in the past 24 hours. This break in the weather has given the snowpack a well needed breather, which in turn should allow the snowpack time to stabilize.

Today there will be a few avalanche problems to consider when riding in the backcounty**.** Avalanches in recently deposited storm snow are still likely in steep-upper elevation terrain. In rocky areas where the snowpack is thin, skiers or riders could potentially trigger large avalanches breaking near the ground (**video**).

Another concern will be wet snow avalanches. The combination of above freezing temperatures and unabated sunshine will have a destabilizing effect on the snow surface. Aspects facing south through west will heat up today and have the potential to produce roller balls or wet-loose avalanches. If these signs of instability are present, it will be best to move to shadier aspects.

For today, some natural avalanches are possible, but human triggered avalanches are likely on slopes steeper than 35 degrees which have **CONSIDERABLE** avalanche danger. Less steep slopes have a **MODERATE** avalanche danger.

Gallatin Range Madison Range

Lionhead area near West Yellowstone

Yesterday, Mark and I rode into the Buck Ridge area in the northern Madison Range and found a mixed bag of snow conditions. On some slopes we found weak layers in the pack that were willing to propagate fractures during stability tests. On other slopes we found strong and stable snow. This contrast in test results is a good illustration of the type of snowpack that we're currently dealing with (**video**).

While stability has been slowly improving, we still have some issues. There is a layer of facets buried three feet down that formed in January. These facets have slowly been gaining strength, but incremental loading has continued to add weight and stress to the snowpack. As a result, avalanche activity continues to occur. Most

slides have broken on the January facets but not all. One cornice triggered slide (**photo**) near Big Sky Resort propagated over 1000 feet wide on the January facet layer, but stepped down to facets near the ground. About 2 weeks ago several slides (**photo**) near West Yellowstone in the Lionhead area also broke near the ground.

It's difficult to know what slopes are stable and what slopes are not. I recommend digging down three feet to assess the strength of the January facet layer in the area you plan to ride. Also, pay attention to changing snow conditions. The March sun is strong and sun exposed slopes could become increasingly unstable throughout the day. If roller balls or wet loose avalanches are observed it would be best to move to shadier aspects.

Today, many slopes are stable but some are not. For this reason human triggered avalanches are possible and the avalanche danger is rated **MODERATE**.

Bridger Range

The Bridger Range received almost an inch and a half of SWE (snow water equivalent) in less than six hours on Thursday. This rapid loading event produced new snow avalanches during the storm, including a slide on Saddle Peak that ran from the summit and down over the cliffs. Avalanche activity ceased once the snow stopped. The snowpack in the Bridger Range is generally strong and should support this load on most slopes. Avalanches breaking on the new snow/old snow interface remain possible in steep terrain. As conditions warm up today, the snowpack could become more active. Watch for signs of increasing instability such as roller balls and wet-loose sloughing. Avoid slopes where these signs are present.

Today, human triggered avalanches are possible and the avalanche danger is rated **MODERATE**.

CORNICES

It's worth noting that cornices are growing large in size and have been the triggers for large avalanches over the past week. As more snow and wind put additional stress on these monsters, they will continue to break loose especially as they creep during warm weather. Avoid slopes directly under cornices, and give them a wide berth along ridgelines because they can break farther back than one might expect (**photo**).

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.

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