GNFAC Avalanche Advisory for Wed Jan 7, 2015

Good morning. This is Doug Chabot with the Gallatin National Forest Avalanche Advisory issued on Wednesday, January 7, at 7:30 a.m. Today's advisory is sponsored by **BozemanSkiGuide.com** and **Edward Jones**. This advisory does not apply to operating ski areas.

Mountain Weather

Yesterday morning before the storm ended Cooke City picked up a couple more inches. At ridgelines winds blew out of the west at 30-40 mph, but have calmed to 10-20 mph last night. At 5 a.m. valley temperatures are in the low teens and mountain temperatures are in the mid-20s. Today will be mostly sunny, temperatures will rise to near freezing and winds will remain light out of the west.

Snowpack and Avalanche Discussion

Bridger Range Gallatin Range Madison Range Lionhead area near West Yellowstone Cooke City

The clouds lifted yesterday and we were able to get a good look at the backcountry. Heavy snowfall, both in weight and intensity, dropped 2-3+ inches of <u>Snow Water Equivalency</u> throughout southwest Montana. This storm buried a layer of surface hoar which is a major concern since these feathery crystals can be unstable for a long time. Two of us skied into Beehive-Bear Basins yesterday while Mark and his partner rode onto Buck Ridge. Other riders and skiers wrote in with good observations which helped us paint a picture of the stability.

- Around Cooke City over four feet of snow fell. A large avalanche on Lulu Pass was seen yesterday and smaller ones south of town (**photo**).
- Two naturals near Bridger Bowl, one on the east and another on the west side, were seen by the Bridger Ski Patrol. So far no surface hoar has been found in the Bridger Range.
- Skiers dropped a small cornice off the Flanders ridge in Hyalite on Monday and triggered a large slide.
- Mark saw four recent avalanches on Buck Ridge, all wind-loaded and breaking about two feet deep (photo1, photo2).
- In Beehive-Bear Basins I did not see avalanche activity or any obvious signs of instability, but I did discover that an older layer of facets near the ground was breaking in my stability tests (video, photo). At Big Sky they triggered a large avalanche on these facets during control work on Monday.
- In Teepee and Cabin Creek of the southern Madison Range, snowmobile guides did not see any avalanche activity nor did they find any surface hoar. Their stability tests were all ECTN too.

The snowpack was just put under a lot of stress and held together better than I expected. Buried surface hoar is still a concern in the Gallatin and Madison Ranges, and around Cooke City. Lionhead is a question mark and should be treated as though it is there until proven otherwise. In areas where it is absent the recent load created instability on deeper layers. The only way to tell is to dig and see if the surface hoar or weak facets are there before committing to a steep line (article on digging). There is no shortcut.

You can get lucky and ski steep lines without triggering slides, but given the checkerboard pattern of weak layer I do not recommend this plan of attack. There are many unstable slopes lurking around and triggering slides are possible. On slopes that got wind-loaded Sunday through yesterday the likelihood is even greater. For today, the avalanche danger is rated **CONSIDERABLE** on any slope wind-loaded OR any slope steeper than 35 degrees. All other terrain has a **MODERATE** danger.

Mark 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.

AVALANCHE EDUATION and EVENTS

Take a look at our **Education Calendar** for all our classes being offered.

TONIGHT: 1-hour Avalanche Awareness for Snowmobilers, Billings, 6:30-8 p.m., Wednesday, January 7 at Hi-Tech Motor Sports.

Companion Rescue Clinic, Bozeman, Friday eve and Saturday field, January 9 and 10, REI. Register for the class here: www.rei.com/stores/bozeman.html

1-hour Avalanche Awareness for Snowmobilers, West Yellowstone, 7 p.m., Saturday, January 10, Holiday Inn.

1-hour Avalanche Awareness, Three Forks, 7 p.m., Monday, January 12, Methodist Church Annex.

Women's Avalanche Awareness w/ Beacon Practice, Bozeman, 6:30-8 p.m., Tuesday, January 13, Beal Park.

1-hour Avalanche Awareness, 4 Corners, 6:30 p.m., Wednesday, January 14, GVSA Groomer Shed.

1- hour Sidecountry Avalanche Awareness, Bozeman, 6:30-8 p.m., Wednesday, January 14, REI.

Companion Rescue Clinic, Cooke City, 9 a.m.-3 p.m. on Sunday, January 18. More details and registration: https://www.ticketriver.com/event/13990

Introduction to Avalanches with Field Course, MSU Bozeman, evening lectures 7-9:30 p.m. Wednesday and Thursday, January 21 and 22, with an all-day field session on Saturday or Sunday (your choice). Get more information and register here: https://www.ticketriver.com/event/13090

Advanced Avalanche Workshop with Field Course, MSU Bozeman, evening lectures 7-9:30 p.m. Wednesday and Thursday, January 28 and 29, with an all-day field session on Saturday. Get more information and register here: https://www.ticketriver.com/event/12445

The **Friends of the Avalanche Center** and **Montana Ale Works** are hosting an *Avalanche Forecaster's Beer Social Fundraiser* the evening of January 27th. Get more information and buy tickets here: https://www.ticketriver.com/event/14010