

GNFAC Avalanche Advisory for Wed Jan 11, 2012

Good morning. This is Doug Chabot with the Gallatin National Forest Avalanche Advisory issued on Wednesday, January 11 at 7:30 a.m. This advisory is sponsored by a Montana Fish, Wildlife and Parks, Recreation Trails Grant. This advisory does not apply to operating ski areas.

Mountain Weather

Everyone got an equal helping of cold temperatures and wind, but not snow. The Bridger Range along with West Yellowstone got skunked and only picked up an inch. The northern Gallatin Range and mountains around Cooke City got 6-8 inches while the Big Sky area and southern Madison Range got 3-5 inches. Mountain temperatures this morning are zero to -10F with 5-10 mph winds out of the northwest, but 20 mph out of the east in Cooke City. As the snow fell yesterday, west to northwest winds blew strong and averaged 20-30 mph with gusts over 40 mph. Today will be sunny, temperatures will rise into the teens and winds will remain calm. The next snowfall is predicted to be...Sunday night.

Snowpack and Avalanche Discussion

The Bridger Range and Lionhead area near West Yellowstone:

The Bridger Range and Lionhead area near West Yellowstone only got an inch of snow. Winds were strong yesterday, but without snow to move around, the effects will be minimal. Although geographically far apart, these two areas have similar concerns of weak, faceted snow at the ground that is capped by a slab of snow. In West Yellowstone the inch of snow was enough to cap a layer of surface hoar, an additional problematic layer in the snowpack ([photo](#)). Karl Birkeland was in the Bridger Range yesterday and found that slopes with a slight wind-load would propagate fractures, while those without would not ([video](#)). For today, the avalanche danger is rated [MODERATE](#) on all slopes since it's still possible to trigger avalanches on the buried, weak facets. As Karl showed in his video, slight terrain changes effect the snowpack and avalanche potential. He described the danger to me as "heads-up moderate."

Madison and Gallatin Ranges, and the mountains around Cooke City:

Yesterday's snow was light density, 5% powder. Less than half an inch of water ([SWE](#)) fell in the Gallatin, Madison and Cooke City Ranges. This will not add much stress to the snowpack except in areas wind-loaded with the storm. Eight inches of airy fluff are now blown into 1-2 foot thick drifts. Winds were not confined to the ridgetops either; strong winds cross-loaded lower slopes too. With anemometers showing north to west winds at ridges and south to east winds at lower elevations, you'll be able to find wind-loading on most aspects. To complicate things further, Cooke City even has ridgetop winds blowing from the rare direction of east.

The avalanche message is simple: Wind-loading is bad. Our mountains have various layers of weak, sugary facets that will have a difficult time supporting a wind drift ([video](#)). The snow surface before the storm was also feathery crystals of surface hoar and near surface facets ([snowpit](#)), now buried and unstable. The avalanche danger is [CONSIDERABLE](#) on all wind-loaded terrain today, no matter its steepness. Even slopes slightly wind-loaded will be sensitive to triggering. On sheltered slopes the avalanche danger is rated [MODERATE](#).

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.

Beacon Parks

The Friends of the Avalanche Center installed a Beacon Training Park outside West Yellowstone last Friday. It's located south of town on the main snowmobile trail. Stop by and do a quick practice before heading off into the mountains!

Events/Education

Bozeman

[1-hr Avalanche Awareness Lecture](#). TONIGHT, January 11, 6:30-7:30 p.m. at REI.

[20/20 Hindsight - Lessons from recent accidents](#). Tuesday, January 17th, 6:30-7:30 p.m. at Montana Import Group

Cooke City

[1-hr Avalanche Awareness Lecture](#). Saturday, January 14, 5-6:00 p.m. at Cooke City Community Center.

Cody, Wyoming

[Snowmobiler Introduction to Avalanches with Field Course](#). Lectures on Saturday, January 14 at Mountain Valley Motorsports with an all day field session near Cooke City on Sunday, January 15. Advanced registration IS REQUIRED.

Great Falls

[1-hr Avalanche Awareness Lecture](#) Thursday, January 19th, 7-8 pm at Greenup Performance

Billings

[Snowmobiler Introduction to Avalanches with Field Course](#). Lectures on Tuesday, January 24 from 6-9 p.m. at Hi-Tech Motor Sports with an all day field session in Cooke City on Sunday, Jan 29. PRE-REGISTER BY JAN 23 at Hi-Tech!! Register with Sharon at 406-652-0090; hitech@hi-techmotorsports.com.