

## **GNFAC Avalanche Advisory for Mon Feb 15, 2016**

Good morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Monday, February 15, at 7:00 AM. Today's advisory is sponsored by [\*\*Yellowstone Arctic Yamaha and Yamaha Motor Corp\*\*](#) in partnership with the **Friends of the Avalanche Center**. This advisory does not apply to operating ski areas.

### Mountain Weather

Overnight the mountains around Cooke City and West Yellowstone picked up 3-4 inches of new snow while the mountains near Bozeman and Big Sky picked up 1-3 inches. This morning, light snow continues to fall in the mountains across the advisory area. At 5 a.m. Temperatures are in the 20s F and westerly winds are blowing 10-30 mph with gusts over 40 mph. Today, temps will warm into the upper 20s to mid-30s F and winds will remain strong out of the west. Snow will continue through the day with 2-3 inches likely by days end. An additional 1-3 inches is possible tonight into tomorrow.

### Snowpack and Avalanche Discussion

Bridger Range Madison Range Gallatin Range

Lionhead area near West Yellowstone Cooke City

Snow is gradually piling up in the mountains as small but frequent storms impact southwest Montana. Since Saturday, most areas have received between 6-10 inches of snow totaling .6 to .8 inches of SWE. This new snow has fallen on a variety of old snow surfaces ranging from firm crusts on sun exposed slopes to softer snow on shadier aspects.

The new snow is bonding well due to warmer temperatures and higher density snow; however, there are few avalanche problems that exist. The most significant problem will be wind loaded slopes. Wind loading will be most substantial in upper elevation terrain leeward to westerly winds. Fresh wind slabs will be dense and reluctant to move, but with the proper trigger have the potential to fail and produce large avalanches.

Another concern with wind loading is the additional weight and stress applied to weak layers buried deeper in the pack. Yesterday, a snowmobiler triggered a slide up Taylor Fork in the southern Madison Range. The slide failed at the ground and released when the rider was half way up the slope. It's likely the slope was heavily wind loaded. This is a good reminder that slides failing on faceted layers deeper in the pack can't be ruled out. I also found this problem on a northeast facing slope in Middle Basin on Saturday ([video](#)).

A growing concern is a layer of surface hoar and near surface facets now capped by 6-10 inches of new snow. Doug found this layer in the Lionhead yesterday ([video](#)) and it has also been found in the mountains around Cooke City ([photo](#)). This distribution of this layer is spotty, but it most likely exists on sheltered slopes protected from the sun and wind. This layer has not been found in the mountains around Bozeman and Big Sky.

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

Doug will issue the next advisory tomorrow morning by 7:30 a.m. If you have any snowpack or avalanche observations to share, drop us a line at [mtavalanche@gmail.com](mailto:mtavalanche@gmail.com) or leave a message at 587-6984.

### **Darren Johnson Avalanche Education Memorial Fund**

The National Avalanche Foundation set up an education fund in memory of Darren Johnson, the Yellowstone Club ski patroller who died in an avalanche on January 19. You can check out details and make donations here: <http://www.mtavalanche.com/sites/default/files/NAF%20Darren%20Johnson%20Memorial%20Fund.pdf>.

### **EVENTS and AVALANCHE EDUCATION**

*A complete calendar of classes can be found [HERE](#).*

**West Yellowstone:** Saturday, February 20, 7-8 p.m., *1-hr Avalanche Awareness for Snowmobilers* at the Holiday Inn.

**Bozeman:** Wednesday, February 24, 6-7 p.m. *1 hr Avalanche Awareness*, Roskie Hall, MSU