Good morning this is Mark Staples from the Gallatin National Forest Avalanche Center with an early season Avalanche Information Bulletin issued at 11 a.m. on Thursday, November 5<sup>th</sup>.

#### Mountain Weather

The start of November received a break from what seemed like an early arrival of winter during October. Nearly 2.5ft of new snow fell last week in the mountains around Bozeman and Big Sky, while the mountains near Cooke City and West Yellowstone received 6-9 inches. That snow has settled to a total snowpack depth of 20-22 inches near Bozeman and Big Sky and 7-17 inches near Cooke City and West Yellowstone. Warm sunny days and clear cold nights will continue until this weekend when some precipitation will be possible.

#### Snowpack and Avalanche Discussion

A wise, old avalanche expert once told me "More snow = more avalanches." Last week was no exception with several natural and human triggered avalanches occurring after both the Wednesday and Friday storms. In some cases these avalanches were confined to pockets of wind drifted snow. In other cases these were much larger avalanches likely breaking on a layer of snow from storms in early October. This layer probably faceted during warm sunny days and clear cold nights and became the weak layer responsible for this avalanche activity. Because snow coverage varies widely this time of year, the snowpack is highly variable with both stable and unstable conditions possible.

Three skiers in the Tobacco Root Mountains, just outside the advisory area, experienced a dramatic example of this variability when they triggered a sizable avalanche on Saturday. They dug several snow pits while climbing to the top of their first run finding stable conditions on the left side of the slope where they skied. Unfortunately they encountered a different snowpack only a short distance to the north and triggered an avalanche while climbing to the summit on the right side of the slope. All three were caught but not buried and not seriously injured. This accident highlights spatial variability and the need to continually reassess the snowpack. An excellent account of this avalanche is posted on our new accidents page: http://www.mtavalanche.com/accident/09/11/03-0

Another notable avalanche occurred naturally on Lone Mountain late Friday night on a steep wind loaded slope. The snowpack on this slope likely contained weak, faceted snow formed during early October's cold weather and loaded during last week's heavy snow and strong winds. Because Big Sky is still closed and has a backcountry snowpack, we pay special attention to avalanche activity there. See a photo at: http://www.mtavalanche.com/images/09/lone-peak-natural-avalanche

Avalanche activity has declined this week with warm dry weather, but stay on your toes and dig lots of pits including quick hand pits. This task is easy because the snowpack is shallow. Also, pay attention to changes in the snow. Many skiers who triggered recent avalanches reported feeling something different under their skis or feet. Don't ignore these changes. Even small avalanches can cause serious injury if they sweep you off a cliff or run you into rocks or trees.

## A SPECIAL CAUTION TO HUNTERS:

Since many hunters travel solo, do not carry avalanche rescue gear and focus their energies on game instead of snow, they are susceptible to getting caught in a slide. It's not unusual for hunters to trigger avalanches this time

of year. Be wary of crossing any wind-loaded gullies and avoid avalanche terrain which is any snow covered open slope steeper than 30 degrees.

# PRAY FOR SNOW

This Friday at the Gallatin County Fairgrounds in Bozeman join us at the Pray for Snow Party to celebrate the upcoming winter season and to raise money and awareness for the Friends of the Avalanche Center. The party starts at 6pm with live music, a ski movie from Cold Smoke Awards and the famous Burning Dog. Big Sky Brewing will sponsor this event, and everyone who comes will have a chance to win a season pass to Bridger Bowl or Moonlight Basin, lift tickets to Big Sky Resort and Jackson Hole, and a new pair of skis courtesy of Grizzly Outfitters! Details at:

http://www.facebook.com/pages/Bozeman-MT/Friends-of-the-Gallatin-National Forest-Avalanche-Center/173768210029?ref=mf#/event.php?eid=295005610081&index=1

We will send out Avalanche Information bulletins as conditions warrant. In the meantime, play it safe and don't get injured! We're always interested in your backcountry observations so drop us an email at mtavalanche@gmail.com or leave us a phone message at 587-6984.

## TWITTER/FACEBOOK

Follow us on twitter.com/avalancheguys and Facebook under Friends of the Gallatin National Forest Avalanche Center: <u>http://www.facebook.com/pages/Bozeman-MT/Friends-of-the-Gallatin-National-Forest-Avalanche-Center/173768210029?ref=ts</u>

# **AVALANCHE EDUCATION**

We're busy taking reservations for our avalanche classes. We've already scheduled the Basic Avalanche Awareness class at MSU on Dec 2,3&5. Snowmobile Awareness classes are offered Dec 2,3 &8 in Bozeman and Dec 17&18 in West Yellowstone. Check out our classes at http://www.mtavalanche.com/education

If you would like to schedule a class you can drop Jay Pape (Education Coordinator) an email at friendsofgnfac@gmail.com