

## **GNFAC Avalanche Advisory for Fri Jan 22, 2010**

Good Morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Friday, January 22, at 7:30 a.m. **Gallatin County Search and Rescue**, in cooperation with the **Friends of the Avalanche Center**, sponsor today's advisory which is in memory of **Andrew Greicar** from North Dakota. Andrew died in an avalanche near Cooke City seven years ago today. This advisory does not apply to operating ski areas.

### Mountain Weather

Yesterday the southern Madison Range received an inch of snow while all other areas remained dry. This morning with a major storm approaching winds increased blowing 10-30 mph from the southeast with temperatures in the teens F. Snowfall will start in the southern regions and move north before wrapping around east of the advisory area. At 4 a.m. the first wave of snow was approaching the mountains near West Yellowstone where 6-8 inches should fall by tomorrow morning. The mountains near Big Sky and Cooke City should get 4-6 inches, and the Bridger Range will receive 2-4 inches. Temperatures will only climb into the low 20s F with strong winds continuing to blow from the southeast near 30 mph. By this afternoon winds should calm and shift to a more southerly direction.

### Snowpack and Avalanche Discussion

The Madison Range, the southern Gallatin Range, and the Lionhead area near West Yellowstone:

The snowpack in the mountains near Big Sky and West Yellowstone contains a slab resting on weak faceted crystals hardly able to support the overlying snow. This poor structure exists on all aspects and elevations evident in snow profiles from West Yellowstone and Bacon Rind, stability tests that easily propagate fractures, and obvious clues like collapsing and cracking. These instabilities are widespread and avalanche activity has even been observed on small slopes at the Moonlight Basin golf course.

Today's snow will add sufficient stress to the snowpack to produce avalanches especially on wind loaded slopes where the primary concern is an avalanche breaking several feet deep on buried faceted layers. Also, remain wary of sheltered and seemingly safe slopes well below treeline where equally weak snow exists. With strong southeasterly winds, unusual loading patterns will occur today. Slopes that are often scoured by wind may be loaded. Today wind loaded slopes will have a [HIGH](#) avalanche danger. Other slopes will have a [CONSIDERABLE](#) avalanche danger.

The Bridger and northern Gallatin Ranges, the mountains around Cooke City and the Washburn Range:

The snowpack near Bozeman and Cooke City contains similar layers but is not as close to its breaking point. Observers have not experienced any obvious signs of instability and stability tests are showing signs of an improving snowpack but the structure has not changed. With the stress of today's new snow and wind drifted snow added to buried layers of facets, I have low confidence in the stability of this snowpack. Some slopes are weaker than others especially ones loaded from southeasterly winds. Today wind loaded slopes will have a [CONSIDERABLE](#) avalanche danger. Other slopes will have a [MODERATE](#) avalanche danger.

I will issue the next advisory tomorrow morning at 7:30 a.m. If you get out in the backcountry give us a call or email with your observations. You can reach us at 587-6984 or email us at [mtavalanche@gmail.com](mailto:mtavalanche@gmail.com).

## Avalanche Education

### Education Calendar

#### 1. Four Corners Groomer Shack

RESCUE LECTURE: Tuesday, January 26th 7pm. The Gallatin Valley Snowmobile Association is having it annual Chili Feed at 6:30pm in the Groomer Shack at 4 corners.

#### 2. Billings

Avalanche Awareness and Rescue Class-Wednesday, January 27th, 6-9 pm at Beartooth Harley.

#### 3. Big Sky

Moonlight Basin Avalanche Course: Join Moonlight Basin for a comprehensive, two-day and one evening avalanche awareness class. Thursday, Jan 28th 5-9:30pm and Friday and Saturday, Jan 29&30 8am-4pm. Contact: [events@moonlightbasin.com](mailto:events@moonlightbasin.com) or 406-993-6026

#### 4. Bozeman

BASIC AVALANCHE WORKSHOP: The Friends of the Avalanche Center and ASMSU Outdoor Rec are offering a Basic Avalanche Awareness Class the evenings Wed, Thur, 27 & 28 January with a field day on Saturday, 30 January. \$25 donation. No sign up required. <http://www.mtavalanche.com/education/classes/basic>

#### 5. West Yellowstone, Holiday Inn

One-hour Avalanche Awareness Class - Saturday, January 30<sup>th</sup> - 7pm to 8pm