Good morning. This is Doug Chabot with the Gallatin National Forest Avalanche Advisory issued on Wednesday, December 9, at 7:30 a.m. Today's advisory is sponsored by <u>Alpine Orthopedics</u> and <u>Javaman</u>. This advisory does not apply to operating ski areas.

Mountain Weather

At 4 a.m. it was eerily warm with the bank thermometer across the street blinking 56F. Mountain temperatures are in the upper 20s in the south and mid-30s in the north. All the local SNOTEL sites are down, so I am unable to confirm that it did not snow in the last 24 hours, although ski areas, webcams and deductive reasoning lead me to that conclusion. Winds are another story and ridgeline stations are reporting gusts from the southwest in the high 50s with averages of 30-45 mph. Today will be warm and remain windy as clouds increase with snowfall starting this afternoon. By morning I expect 1-2 inches up north and 4 inches in the south. Colder temperatures arrive with the storm and tonight they will fall into the low 20s.

Snowpack and Avalanche Discussion

Southern Madison Range Southern Gallatin Range

Lionhead area near West Yellowstone Cooke City

Yesterday's avalanche warning for the southern mountains has expired. A couple natural slides were seen around Specimen Ridge in YNP, but no others were noted. Parties of skiers reported widespread collapsing and cracking of the snowpack around Cooke City. Cracking and collapsing are signs that the snow is unstable and steep terrain should be avoided. Stepping off your skis or snowmobile and sinking to the ground indicates the snow is unsupportable, weak, and faceted. I saw this first hand on Sunday in Cooke City (video). Monday night's 12 inches of new snow (1.3" SWE) fell onto a faceted, weak snowpack. Winds are currently creating wind slabs at many elevations which could be human triggered. For today, the avalanche danger is rated **CONSIDERABLE** on all wind-loaded slopes. Terrain without a wind-load will have a **MODERATE** danger.

Bridger Range Northern Madison Range Northern Gallatin Range

Weak, faceted snow exists in the mountains around Bozeman and Big Sky. Unseasonably warm temperatures have helped these facets strengthen on lower elevation slopes below treeline, but the higher you go, the weaker the snow becomes. The Big Sky Ski Patrol was able to trigger dense wind slabs at the ridgetops which stepped down into the older snow (facets). Early season avalanche control is an indication of what can happen in the backcountry. Wind slabs sitting on top of facets are an unstable snow structure. I found this yesterday up Hyalite and Alex also found unsupportable snow north of Bridger Bowl. For today, the avalanche danger is rated **MODERATE** on all wind-loaded terrain and **LOW** elsewhere.

Ice Fest Report:

Yesterday I went up Hyalite to look at the snowpack in the gullies above the ice climbs. I was pleasantly surprised: the facets and instability were pockety and not widespread. The snowpack clearly benefitted from this

week's warm temperatures. I made a <u>video</u> pointing out the variability I found gully to gully. If you punch through the wind slab and sink to the ground you can assume the underlying snow is weak. At the first sign of shooting cracks I recommend descending. Even tiny avalanches can sweep climbers off cliffs or hit people below.

Alex will issue the next advisory tomorrow morning at 7:30 a.m. If you have any snowpack or avalanche observations to share, drop us a line at <u>mtavalanche@gmail.com</u> or leave a message at 587-6984.

EVENTS and AVALANCHE EDUCATION

A complete calendar of classes can be found <u>HERE</u>.

TONIGHT! Great Falls: December 9, Avalanche Awareness, Back Alley Pub, 6-7 p.m.

TONIGHT! Bozeman: December 9, Avalanche Awareness, REI, 6-7:30 p.m.

Helena: December 10, Thursday, Avalanche Awareness, The Basecamp, 6-7:30 p.m.

Bozeman: December 15, Tuesday, Avalanche Awareness and Beacon 101, Beall Park, 6-8 p.m.

Bozeman: December 16, Wednesday, *MAP Brewing Fundraiser*, \$1 pint donated to the Friends of the Avalanche Center

West Yellowstone: Snowmobiler Introduction to Avalanches with Field Course

December 17 and 18, 2015: https://www.ticketriver.com/event/17356

Five hours of lectures are followed by a full day field course. Topics include: avalanche terrain recognition, the affect weather has on avalanche hazard, the development of the mountain snowpack, decision making skills, and basic search and rescue procedures.