Weird Conditions in the Madisons

Date Wed, 02/05/2025 - 10:00 Activity Skiing

Started touring from the road around 8:30, with temps just above 0F. Half an hour later and 200 feet higher (~6150 feet) we were down to base layers and temps were above freezing. The top 5cm of surface snow was moist for most of our tour, with about 15-20 cm of dry snow below, overlying a buried crust in most areas.

As we got higher (~7000 ft) we noticed roller balls from the previous day, as well as dust on the snow surface.

Above 8000 feet surface snow became mostly dry on northerly aspects but a surface MFcr or a thin layer of moist surface snow still existed on southerly aspects. We skied a northly aspect first and it wasn't too bad.

Around noon graupel showers turned into S2 snowfall with sustained strong winds at ridgetop. A very abrupt change in weather and snow conditions. As we descended and drove back to Bozeman the temperature inversion was still going strong.

Our main thoughts are that this bodes for weird things to come. The snow yesterday was falling on a crust at higher elevations, but burying cold (potentially faceted?) snow at lower elevations. There were signs of developing wet snow problems at higher elevations but mid-winter conditions at lower elevations. It seems like our standard way of thinking about avalanche problems/hazard distribution may have to become inverted along with the temperatures.

Region Northern Madison Location (from list) Deer Creek Observer Name N deLeeuw