Wind Loaded Slopes in Hyalite

Date Tue, 01/21/2025 - 12:00 Activity Skiing

Today, we traveled into the Maid of the Mist basin and up and along the Palace Butte ridgeline. Although temperatures have warmed up significantly since the weekend, strong winds kept conditions frigid. Winds blew plumes of snow off the high peaks and at ridgelines, gusting 50-60 mph. Even at low to mid elevations, spindrift was blowing off of cliffs, snow was blowing out of trees, and the surface of the snowpack had been affected by wind. We found stiff, hardened surfaces and <u>sastrugi</u> starting around 8800', nearly 1000' lower than the tops of the surrounding ridgelines.

Most of the high elevation snow has been transported already. Up high, snow surfaces are hardened and we were mindful of wind slabs that have formed in the last few days.

On a north facing <u>aspect</u> at 8800' we got an ECTP 22 in our pit test on a <u>wind slab</u> over softer snow. We also dug on a south facing <u>aspect</u> and found new snow on top of a melt-freeze crust and small faceted grains. This crust likely formed during the warm temperatures before the cold spell last Thursday (1/16).

We heard one <u>collapse</u> on a heavily wind-loaded pillow of drifted snow, but beyond that, the only other sign of current instability was the active <u>wind loading</u> itself.

We chose to avoid traveling on slopes steeper than 30 degrees that had signs of wind affected snow (textured snow surfaces, stiffening of surfaces, and obvious wind pillows). Slopes that had not been affected by wind held the safest and highest quality riding.

Region Northern Gallatin Location (from list) Maid of the Mist Observer Name H. Darby