

## Dust-crust, new snow, some avalanches in Cooke

Date

Sun, 04/17/2022 - 10:30

Activity

Skiing

Snowmobiling

Observations from Cooke City 4/15-4/18.

4/15 - skied in Sheep Creek. 3-4" new snow, partly sunny, temps 20s to low 30s, moderate wind.

4/16 - skied/snowmobiled near Lulu Pass and Goose Creek. 3" new low density snow, light snow all day, mostly cloudy with moderate to strong wind and temps mid-30s.

4/17 - snowmobiled the full circuit (reverse) from Round Lake to Sheep/Scotch Bonnet, over Lulu to Abundance and back over Daisy. 9" new snow, sunny, temps high 20s, moderate to strong wind.

4/18 - skied in Sheep Creek same area as 4/16. Trace new snow, sunny, light to moderate wind, temps to 40s.

Avalanche activity: 4/15 none 4/16 - a couple very small natural loose snow slides. 4/17 - natural 6-16" slabs on heavily wind loaded slopes on east [aspect](#) of Sheep Mtn., north face of Miller and east Wolverine mostly D1-1.5; a couple 2-4" deep, 10' wide slabs on small hills lower down; and two skier triggered D1.5 loose snow/storm slabs on the east [aspect](#) of Miller Ridge. Nothing very big or notable. 4/18 - Large D2 natural [slab](#) on east facing Mineral, wind loaded slope below cliffs, from yesterday or maybe this morning. Rollerballs and pinwheels by 11 am, and a couple wet loose slides below cliffs on southerly slopes around noon. I was able to easily make pinwheels on west-southwest aspects around 1230-1pm on my way out. (I will upload a video for future reference in bulletins).

Interesting note: there was a layer of dust within the snow that fell the day prior to my and Ian's visit on 4/7. This dust layer was 2-5 cm thick, about 10-15cm down in the 30+cm of new snow that had fallen. I suspect the strong winds associated with that storm blew the dust in and it mixed with the snowfall in the middle of the storm. During my visit on 4/15-4/18 I saw this layer is evenly distributed through the mountains (now buried 10-16") and makes it easy to spot the MF interface below snow that fell from 4/11-4/17 (2" SWE).

The snow below the dusty MF crust is faceted, and on 4/18 I was finding a soft, faceting layer on top of the crust, below 12-16" of recent snow. Other than some isolated cracking and very small collapses I did not see obvious signs of instability on this layer, but felt there could be areas that are unstable with the recent new snow. With the recent load and uncertainty of buried crust and facets as weak layers, on 4/17 danger felt **CONSIDERABLE** (at least on wind-loaded) after 9" of snow (0.9" SWE) topped off the week's storm for a total of 2" SWE in 7 days. On 4/15 and 4/16 danger was more in the moderate realm as it didn't feel like there was enough snow/[slab](#) yet above the recent interface. We were still being cautious of wind-loaded slopes on 4/15 and 4/16, but felt good skiing complex avalanche terrain after proper assessment. On 4/17 we avoided terrain we had skied the prior day (and instead used the motors for deep, low angle pow turns).

Region

Cooke City

Location (from list)

Sheep Creek

Observer Name

Alex Marienthal