Backcountry Weekly Summary



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Week and Year	Summary up to 11/27/20
Backcountry zone:	Crested Butte Area

Notable Weather Events (snowfall, SWE, winds, temps, etc.)

Our season began with an early season storm on 10/25. There were fairly light accumulations with 5" of snow and .5 SWE at the Butte Snotel station, 8" and .7 SWE at Upper Taylor, and 5" with .8 SWE at Schofield. After this initial storm, the skies turned blue, the temperatures increased, and we had a dry next couple of weeks.

Our first large storm of the season came on the 7th of November. The precipitation was off and on from the 7th-9th. When the skies cleared, Schofield pass Snotel station measured 15" of new snow and 2" SWE, Upper Taylor station measured 9" of new snow with 1.7 SWE, and Crested Butte Mountain Resort received 12 inches of new snow. Winds blew from the southwest at a moderate speed throughout this storm.

A period of dry weather followed the November 7th storm. Our next notable storm came through town on the 14th. Unfortunately for our snowpack depth, this storm produced much more wind than precipitation. On the morning of the 14th we woke up to about 5" of snow on the ground at the Gothic townsite, Schofield Pass received 10" of snow with 1" of water, and the Butte received 5" with .5" of water. Overnight in Gothic, winds were 10-20 mph with gusts into the '40s. As the day progressed, precipitation diminished and the winds became much more intense. Peak wind gusts reached 90 mph on the Cinnamon mountain weather station. Wind direction started out of the south, however, as the day progressed wind direction gradually wrapped around the compass to the West and Northwest. This wind event left many windward slopes scoured to the ground and lee slopes with stiff and highly variable slab depths.



After the wind event of the 14th, a period of dry, unseasonably warm temperatures hit the Crested Butte area. On the 18th, temperatures at the Butte Snotel station (10160 ft) reached 45 degrees F during the day with an overnight low of only 35 degrees F. Similar day time temps at Elkton (11100 ft) with a high of 47, however, the night lows did reach the freezing level at 32 degrees.

As of the evening of the 20th, another storm was beginning to make its way into the forecast area. The storm dropped a mild 3 inches of snow with an SWE of .29" at Gothic townsite and very little wind.

After a day of clear skies on the 21st, another trough came through our forecast zone on the 23rd and 24th. In Gothic

on the evening of the 23rd, snow did not get going until nearly 10 p.m. but then precipitation was steady and moderate until about 5 a.m. when it stopped. Snow was dense with 6½" new and an SWE of 0.56", Elkton received 6 inches of new snow, and Schofield Pass received 8" and 0.7" SWE. Winds blew initially out of the south primarily before switching to the NW after frontal passage. At the Cinnamon Mt station, winds averaged 14 mph with gusts into the 50s,

After a nice reset on the 23rd and 24th, the skies have cleared for Thanksgiving and the foreseeable future. With plenty of bluebird days in the forecast, it is a great time to get out in the backcountry and enjoy the mountains!

Snowpack (weak layer date(s) and status, structure, stability trends)

11/7/20 Interface: The dry and sunny period after our October snowfall caused all of the snow to melt off on E S and W aspects. The only snow left on November 6th was on <u>northerly facing aspects above treeline and heavily</u> <u>shaded north-facing aspects near treeline</u>. This remaining snow is weak (2 mm fist hard facets). The layer is mostly discontinuous due to its shallow nature and the brush, talus, and grass which obstruct the layer. However, it is important to note that the layer is more continuous in the smooth, alpine northerly bowls or heavily shaded north-facing terrain where the October snow survived the solar abuse. The storm on the 7-9th produced 9-15" in our forecast area. This storm did not produce avalanche results right away. However, this will be a layer to keep an eye on as we get more loading events. Early signs of the persistent slab issue can be found <u>here</u> where a skier triggered 75' shooting cracks in an isolated shady protected area where the October snow is still lingering at the bottom of our pack. Pictures below highlight a couple of areas where the October snow held up before a new storm dropped fresh snow on November 7th.

North Aspect on Purple Ridge

Halloween Bowl (NW aspect of Baldy)



Redwell Basin (NW aspect on Emmons)



Wolverine Basin (NNE on Emmons)





Here is a snowpit with propagating results. This pit is in an area that contains all of the ingredients for our current persistent slab problem: High Northerly aspect, smooth ground cover, weak snow near the ground, and a wind-loaded slab.



Avalanches

We have not had a major avalanche cycle yet. We have mostly seen small isolated avalanche activity such as this small <u>D1 sluff off Baldy</u> on the 23rd. After our pre-turkey day storm on the 23rd, we saw a handful of <u>small, isolated</u> <u>wind slabs</u> on leeward (NNE) facing ridgelines. Pictures below.



More shallow <u>D1 wind slabs</u> were found on Wednesday (11/25) in the Upper Slate River Drainage. These were found to be small, isolated, and stubborn to trigger.

In heavily shaded areas the 11/6 facet layer can prove to fail under the right circumstances. This observation right here shows an example of just that. Persistent slab avalanches, although unlikely and stubborn, still have the potential to fail where the October snow is continuous and a slab is resting on top.



Incident, accidents, close calls

We have not had any incidents or close calls in our zone. Shown <u>here</u> is a skier triggered slab avalanche from nearby Independence pass. Another D2 wind slab avalanche from Tuesday on Berthoud Pass is shown <u>here</u>. This serves as a reminder that there is potential to trigger an avalanche that can potentially knock you off your feet into early season obstacles such as rocks and logs.

Comments on our next period (11/27/20-11/4/20)

The weather for the next week is looking dry and clear. We will be patiently waiting for our next storm to hit the forecast area. Expect thick crusts to develop on the sunny slopes. On the shady side of the compass, expect surface faceting to plague the snowpack. These maps below show that temperatures are expected to be average and precipitation is expected to be below average (if any) over the next 6-10 days

