

Backcountry Weekly Summary

Intern:	Eric Murrow / Ben Pritchett
Week and Year	December 29th - January 4th, 2018
Backcountry zone:	Crested Butte Area

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

The Crested Butte area saw no new snowfall during this time period. A storm system clipped the northern part of the state, but only produced high clouds in our area.

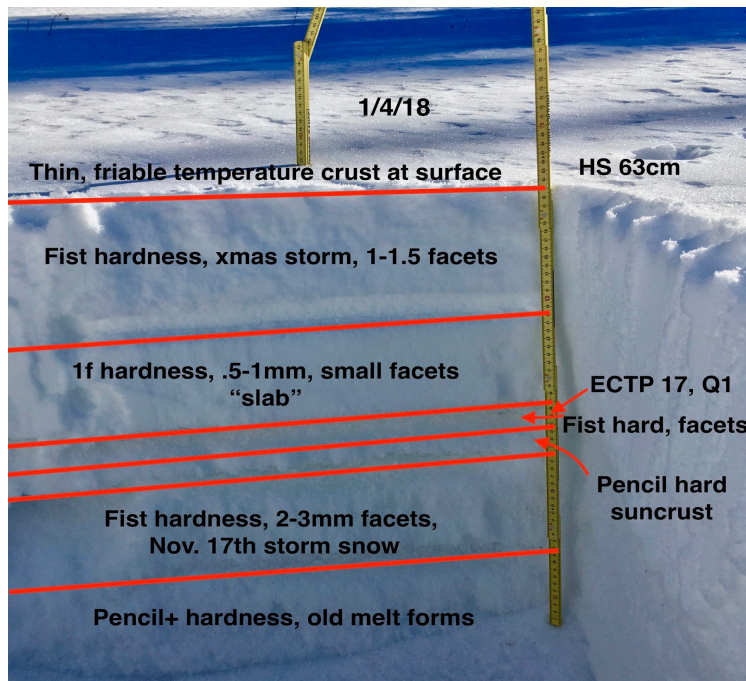
Air temperatures were above normal for our area. Temperatures at mountain weather stations ranged from 10F to 30F. There were several exceptions to these temperatures. Weather stations below treeline experienced several days with daytime highs above freezing and also experienced several days of strong temperature inversions at valley bottoms from cold air pooling.

Winds during this past week were often moderate to strong. Alpine areas continue to be beat up by the winds. Although winds were strong enough to transport snow, there is little snow left to be redistributed so redistribution had little impact on stability.

The cooler temperatures, ideal for faceting, were the most significant weather factor impacting the snowpack in the Crested Butte area.

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

The past week's dry and seasonally cold weather had a significant impact on the snowpack. The shallow nature of the snowpack produced strong temperature gradients which weakened slabs from the Christmas storm cycles to the point that cracking and collapsing became uncommon throughout most terrain. Check out these videos to get more insight into this change, 1/1/18 [Brush Creek ob](#) and 1/2/18 [Snodgrass ob](#). Although most slabs have largely disappeared, the CBAC study plot near Elkton still has a slab present. Our study plot saw some drifting during the Christmas storm cycle which allowed the slab to remain intact. Check out this annotated profile picture to see this structure.



11/17/2017 Interface: This is our deepest layer of concern. It is found directly below the November 17th storm. This structure is found at near treeline locations and isolated above treeline locations. Below treeline this interface is of less concern because of the rain on snow event at the beginning of the November 17th storm. As snow continues to accumulate, this interface may come back to life and produce large avalanches at near treeline locations.

12/13/2017 Interface: This interface was buried by the Christmas storms. Its can be identified by a thin, weak crust surrounded by facets up to 11,000ft. Between 11,000ft and treeline this interface is only weak facets. Numerous avalanches ran on this interface during our Christmas storm cycles. This interface produced propagating test results at the CBAC study plot (see above photo).

12/23/2017 Interface: This interface is sandwiched between two of the Christmas period storms. It is marked by a wind event from December 23rd and was buried by the Christmas day storm. Numerous avalanches ran on this layer immediately following the Christmas day storm. At most below and near treeline locations the Christmas day storm has faceted away, making this less of a concern. The above photo shows this interface at the top of the 1F hardness layer and below, the now slabless, Christmas day storm snow.

Alpine terrain has been significantly influenced by the wind. Winds have redistributed or blown away the snow altogether. Snow depths are highly variable across our terrain and concerning structures are largely defined by wind patterns.

Slopes the face close to due south are generally shallow without persistent slab structure, however many of these south slopes have developed crusts of varying thickness, from friable to 3cm. Underneath these crusts are weak faceted snow that will create persistent slab concerns once buried.

Avalanches

There were no reported avalanches that failed during this past week in the Crested Butte area. There was one slide that occurred above Elkton on an east aspect, that is believed to have ran between Thursday 12/28 and Sunday 12/31 but this unconfirmed (there is a skin track on the ridge immediately above it).

The rest of the state also saw a decrease in avalanche activity during this time period. There were several explosive triggered slides in the Front Range, one skier triggered soft slab near Berthoud Pass, and one skier triggered point loose facet slough in the Aspen Zone. Observations of these slide can be [found here at the CAIC website](#) (some slide appearing hear occurred prior to this past week)

Incident, accidents, close calls

None in our area.

Comments (anything unusual/noteworthy, thoughts on the near future)

The snowpack has continued to weaken across our area. The usually dry weather will produce unusual avalanches once the weather produces a large and significant storm. Be prepared for this possibility as another round of snow is forecasted for the weekend.