

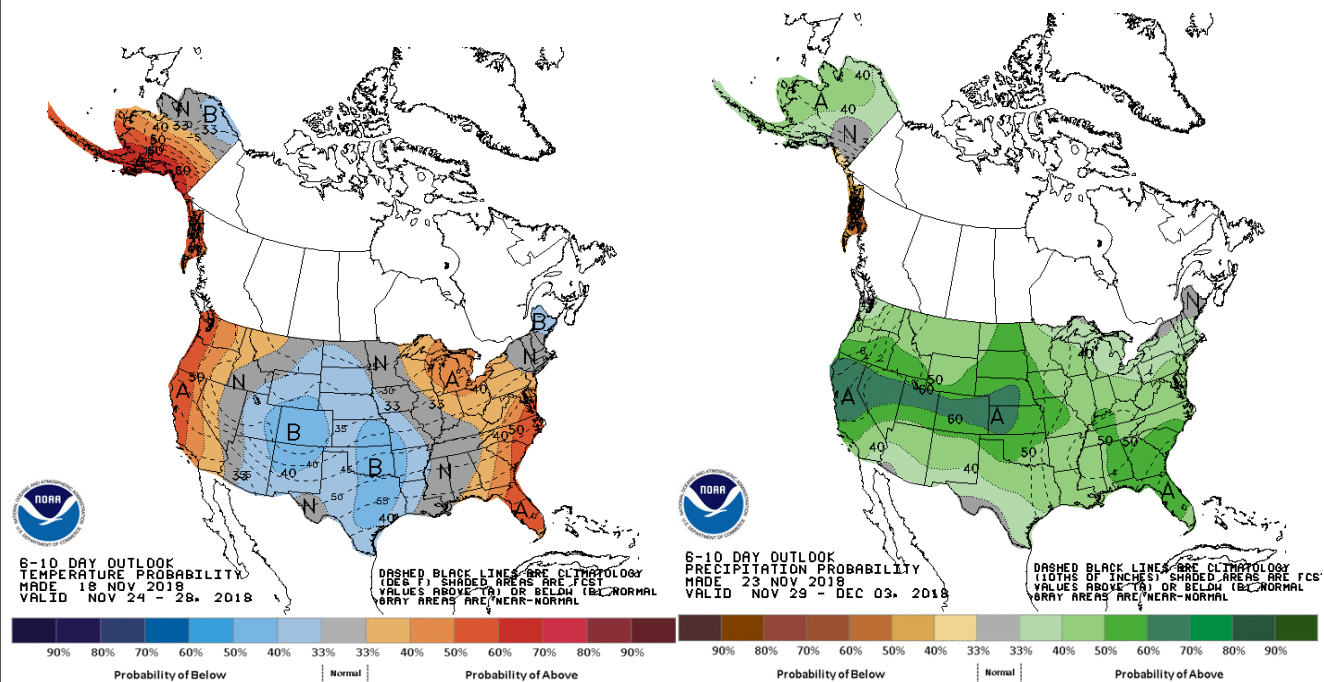
Backcountry Weekly Summary

Intern:	Zach Kinler
Week and Year	November 23-29, 2018
Backcountry zone:	Crested Butte Area

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

After nearly 2 weeks of high pressure under that pesky ridge, the Crested Butte area saw moist, cold and energetic storm cycles to start and close out this period. The first cycle started on Thanksgiving Day 11/22 and lasted through Saturday 11/24 with plenty of moisture, Westerly flow providing good orographics, and a strong front. Our favored zones North and West of town picked up over 2 inches SWE with most areas to the East and South seeing ~1.0 inch SWE. A somewhat short but intense period of winds occurred at the end of this event with sustained NW winds 15-25 and gusts up to 70 mph.

The start of the work week was cold and clear before our second cycle which started Wednesday 11/28 with warm air advection over-riding a strong inversion in the Gunnison Valley with favorable WSW flow providing good accumulations to kick off this cycle.. Snow fell off and on, increasing with the passing of smaller disturbances in moist flow. During these two days, storm totals were ~1.0 inch SWE in our favored zones and generally less than .5 inch SWE East and South. Winds were light-moderate and temperatures were warm, near and just below freezing.



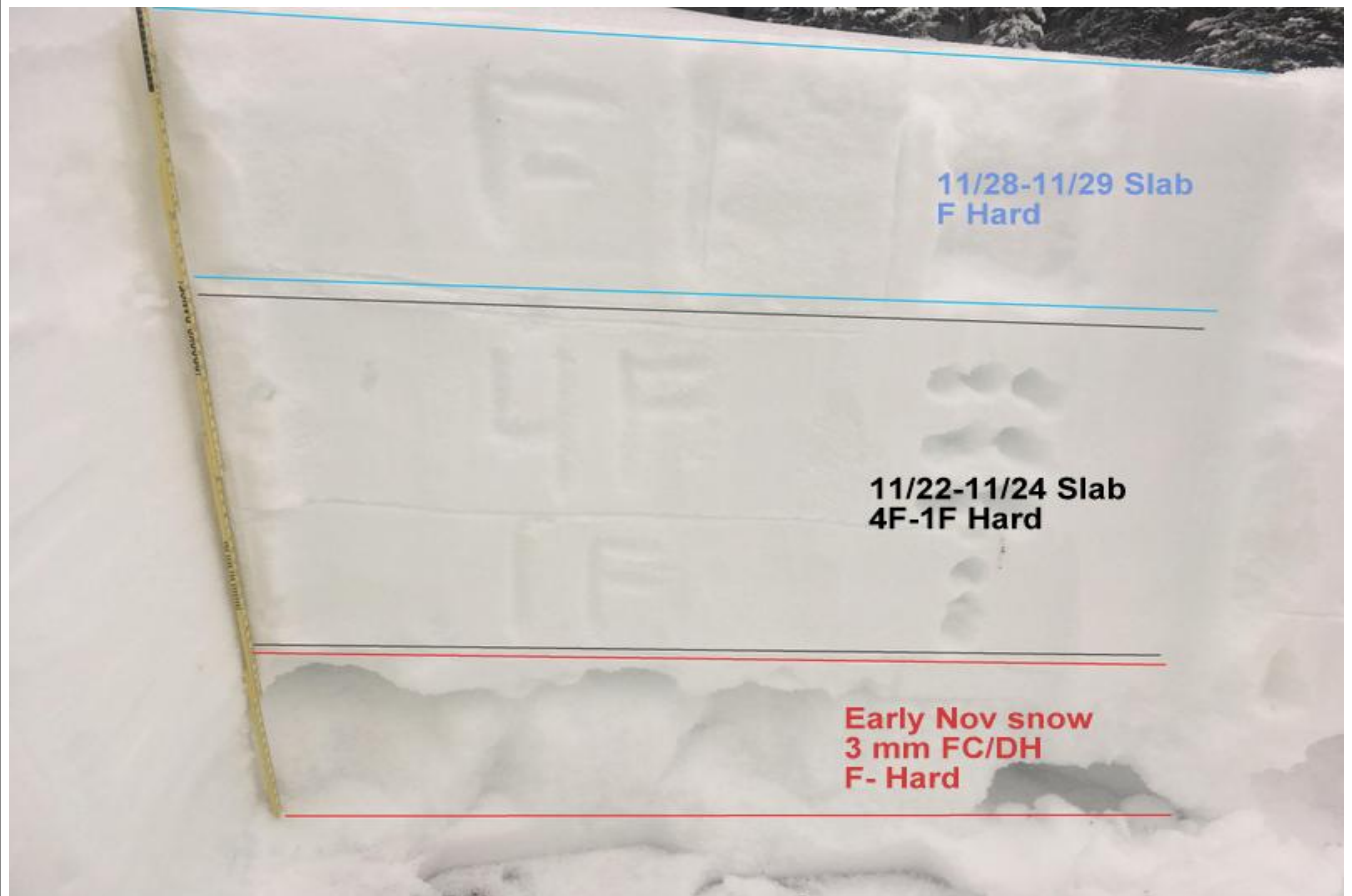
The weather during this period, most notably, created our current Persistent Slab problem with 3-4 inches SWE this week in our snowbelt which added a thick slab to our thin and weak early season snowpack. The above graphic shows the direct flow of moisture and cold air which has been able to push into Colorado during this time.

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

11/22/2018 Interface: This interface has already been given several names, Gobbler interface, Turkey Day interface, Thanksgiving interface. Call it what you will, it is our most concerning layer currently and it looks like we will be dealing with it for some time. Early November snowfall provided a mostly continuous snowpack in our snowbelt North and West of town, and continuous snowpack on N-E aspects near and above treeline in the Eastern/Southern zones. This snowpack faceted away during our mid November dry spell and is now well developed facets and early Depth Hoar. Once buried this layer was immediately reactive with modest loads and easy propagation.

The distribution of this layer is widespread on most aspects and elevations. On the sunniest south facing terrain, it is a crust/facet combo with just facets/depth hoar replacing crusts as you move around to the more easterly slopes and on to the shady side of the compass.

Below is from the Elkton Study Plot up Washington Gulch. 140 degree aspect @ 10,400' clearly showing the old weak snow and the slab we now have resting on top.



Avalanches

During and following our first loading/wind event from 11/22-11/24, avalanche danger elevated to High near and above treeline and Considerable below treeline. This verified as there was a widespread natural avalanche cycle with many slopes greater than 35 degrees on NW-N-E aspects below, near and above tree line sliding. These obs, ["lots of activity"](#) and [Avalanche Activity from Gobbler storm](#) paint a good picture of that event. Most avalanches were D1-D2 in size however at least 2 of the documented avalanches reached D2.5 including one on a SE aspect ATL.

After a short break the next cycle moved into the area on 11/28 and started waking up our PS dragon immediately as seen [here](#). This multi-day event will continue to pile up snow on our fragile snowpack as we head into the weekend.

Incident, accidents, close calls

On 11/25/18, at 08:40 a skier triggered a large avalanche in Red Lady Bowl on Mt. Emmons. This slide broke in the old snow near the ground which contained an ugly, weak mixture of crusts and facets. Avalanche danger had just dropped from High and we were less than an hour from an Avalanche Warning expiring. Heavy snow and wind built a stiff 1F slab creating this large and dangerous avalanche that could have easily buried someone deeply. Fortunately, nobody was caught, buried or injured in this slide and as always there are lots of things we can take from this accident.



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

With a large distribution of weak faceted snow and Depth Hoar across our zone, we head into the season with a weak structure on many of our slopes. With lots of new snow and more in the forecast, thoughtful travel, communication and observation will be key until our Persistent Weak Layer gets buried or becomes less reactive. Unfortunately we are already seeing large avalanches, scary propagation and remote triggers.