Backcountry Weekly Summary

Author:	Jared Berman
Week and Year	2/6/21 - 2/12/21
Backcountry zone:	Crested Butte Area

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

This week's weather can be summarized simply: Three significant storms, warm temps, and strong winds.

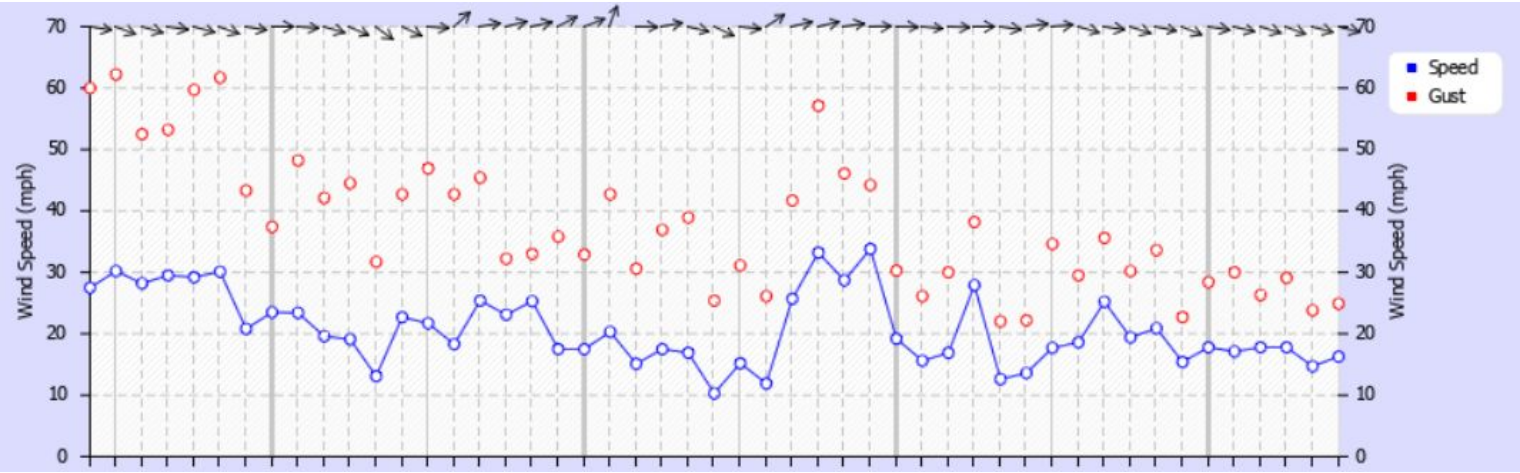
Kicking off the beginning of the week, a powerful weekend storm on (2/5-2/6) left up to 20” of new snow across the central mountains. This storm blew in from the northwest and favored the northwest mountains however the southeast mountains still made out with surprising snow totals.

Following the weekend's storm, skies cleared Sunday (2/7) bringing warm temperatures and strong northwesterly winds through Monday (2/8). Clear skies were short lived however and by Tuesday (2/9) another band of moisture blew in from the west and snow totals slowly increased bringing up to 10” of new snow deeper in the northwest mountains by Wednesday (2/10) evening. The southeast mountains did not do as well bringing only several inches to this zone. Strong winds accompanied this storm and new snow was transported into Thursday (2/11).

Friday (2/12) ended the week with another band of moisture under a westerly flow which continued into Saturday (2/13) bringing heavy snowfall before ending Saturday night.

Storm Totals from our mid-week storm (2/9 - 2/10)
CBMR: 2”
Irwin: 6”
Gothic: 10”
Upper Taylor: 2”

This graph shows moderate/strong westerly winds from Monday evening (2/8) through Wednesday (2/10)



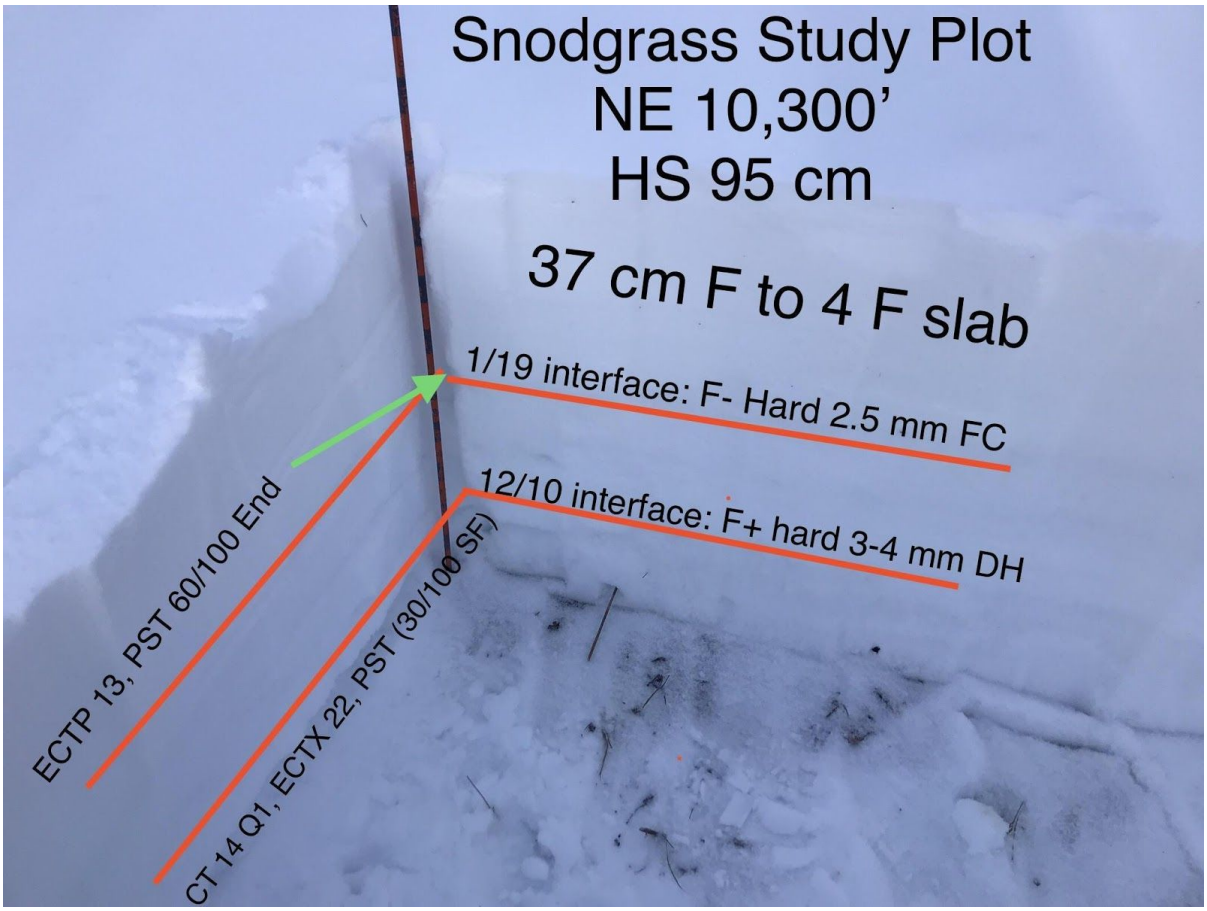
Snowpack (weak layer date(s) and status, structure, stability trends)

Interfaces:

1/19 Interface

A long dry period in early January combined with strong inverted temperatures continued to weaken our snowpack in both regions of our forecast areas. As all aspects experienced continued faceting, winds stripped snow off alpine terrain facing west and north. On sunny South, South-East, and East facing slopes, thin melt-freeze crusts formed resting on top of weak facets down to the ground. This interface has reached its tipping point due to recent loading events and we are seeing numerous persistent slab avalanches fail on this PWL. The **1/19 interface** is our primary concern at the moment and will be for weeks to come.

Here is an example of a snowpit below treeline off snodgrass. It showcases slabs sitting on top of both of our nasty PWL's.



12/10 Interface

The Crested Butte area, along with most of Colorado, suffered through high pressure from 11/23 through 12/9. During this dry period, all areas where snow didn't melt away aggressively faceted. On shadier aspects, this interface consists of 1-2 feet depth hoar. On aspects with more solar radiation, these facets are associated with melt-freeze crusts. On 12/10, new snow buried this assortment of persistent weak layers ushering us into a season-long persistent slab problem. This interface has caused widespread avalanche activity over the past month and a half, such as this helicopter evacuation and this fatality. This interface is now buried very deep in our snowpack. We have not seen as much recent avalanche activity on this interface compared to other interfaces higher in the snowpack.

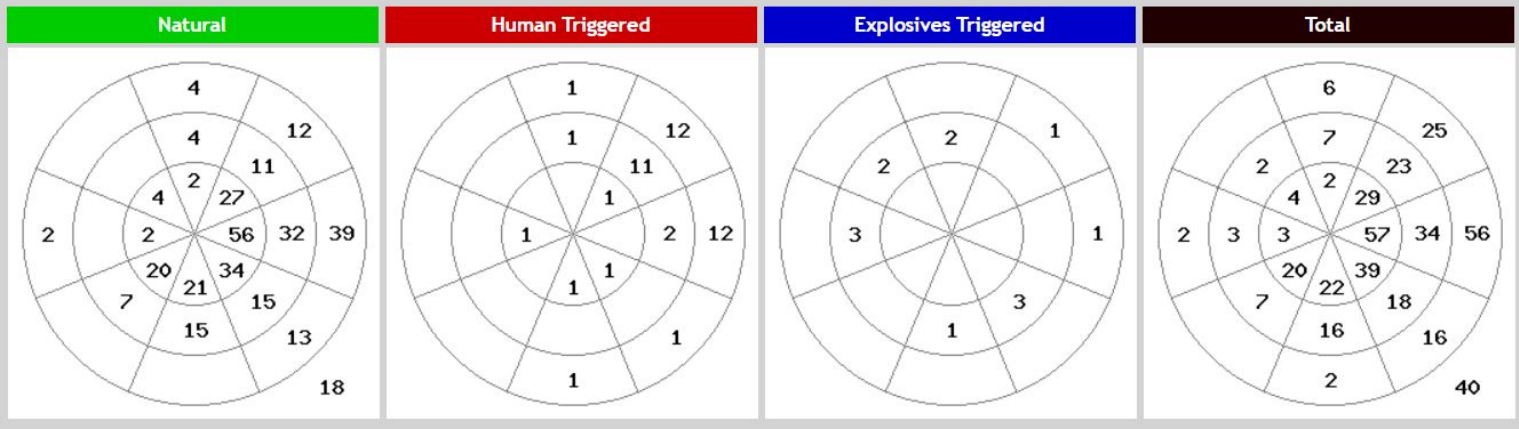
Snowpack in the NW Mountains:

Snowpack in the northwest mountains can be summarized as generally deep with weak layers in the upper snowpack being **reactive** in **specific** terrain features.

With three large loading events this week (2/6, 2/10, 2/13), our weak snowpack was pushed to its tipping point… again. After the first storm of the week ended on Saturday (2/6), up to 20" of new snow was reported and strong northwesterly winds brought our snowpack over the edge. As a result, our largest avalanche cycle of the year broke out on **Saturday** (2/6) and **Sunday** (2/7) where we saw an armageddon of slides on many aspects. Several of which were large enough to destroy a car, destroy a wood frame house, and break trees (D3).

During the remainder of the week, continued snowfall and strong winds continued to stress weak layers on easterly terrain features near and above treeline.

Avalanche distribution in the Gunnison zone showcasing widespread activity this week from Saturday (2/6) - Thursday (2/11)



Snowpack in the SE Mountains

Snowpack in the southeast mountains can be summarized as generally shallow with large avalanches **reactive** in **specific** terrain features.

The snowpack in the SE mountains is starting to become deep enough to the point where **very large** avalanches are of concern on **specific** terrain features on wind loaded slopes near and above treeline. Finally, there is enough snow to start having fun in this zone but unfortunately not without avalanche danger. This week, the southeast mountains have seen widespread avalanche activity near and above treeline, thus putting the zone into a similar danger rating as the northwest mountains for the first time in months. Slabs are generally thinner here compared to the NW zone however, that also means weak layers can be more reactive to the weight of a skier.

Avalanches

Well enough talking about all these avalanches, let's check out some photos of this weeks impressive activity:

Very large (D.3) persistent avalanche on Mt Axtell Saturday 2/6.

Another photo of the same avalanche above

Most of Climax shoots ran on Sunday (2/7) running all the way to valley bottom.

Large (D2) persistent avalanche off Scarp Ridge on Sunday (2/7).

Ruby slide path breaking trees 4” in diameter on Sunday (2/7)

August Ridgeline, East aspect, D2.5 on Sunday (2/7)

Explosive triggered persistent slabs on the Upper Westwall

Incident, accidents, close calls

On saturday, February 6th, a patroller at Irwin Guides was caught and fully buried during morning safety checks. This avalanche occurred on a southwest aspect near treeline on a slope locally known as Sunny Shoulder Right. Luckily the individual was quickly recovered by a companion without injury. This avalanche occurred on a slope that was pounded with ~30lbs of explosives the day before serving as a reminder that persistent slab avalanches can break in surprising ways.

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

Take away from this week is simple, it's dangerous out there, and we're not joking. This message no doubt gets communicated a lot most winters in Colorado, however, this winter is exceptionally more dangerous than winters past. A large amount of natural and human triggered avalanches this week is a sign that we are dealing with an extremely dangerous snowpack both locally and throughout the state of Colorado. Over 400 (yes, 400) avalanches were reported in the central mountains this week alone and with multiple avalanche fatalities across the country, this week has been the deadliest winter for avalanches since 1910. In short, there has never been a better time to choose conservative terrain.

That being said, it's been finally feeling like winter in Colorado. Snowfall has been consistent for the past few weeks so it's time to get out and enjoy the snow! Next week is looking like another snowy one so we will continue into a steady trend in danger. Make safe choices, know what's above you, who's below you, and go have some fun!

This chart shows snow water equivalent in the Gunnison River Basin. The green line is an average of the past 30 years. The black line is the current 2021 winter. We are still below average for this time of year (79% of average) but we still have plenty of winter left. Keep praying to Ullr!