Backcountry Weekly Summary

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Week and Year	2/13-2/19/2021
Backcountry zone:	Crested Butte Area

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

3 back to back to back storms hit our forecast area on Friday 2/12, Saturday 2/13, and Monday 2/15 respectively. Following the fresh pow, mild weather moved in for the second half of the period.

The initial storm on Friday (2/12) moved into our zone under a west southwest flow. Moderate wind speeds and high gusts transported snow throughout the entirety of the storm. After a brief lull in precipitation Saturday (2/13) morning, another low pressure trough made its way towards Crested Butte around midday 2/13. This storm continued the trend of west southwest winds transporting freshly available snow onto leeward ridgelines. See storm totals below.

Friday 2/12 storm: (Precipitation decreased around 2 am Sat 2/13 morning.)

Schofield: 10”, 1.5” SWE CBMR 7"

Elkton, 8” Butte: 7”, .6 SWE

Upper Taylor: 11" and .7 SWE

Saturday 2/13 (Started snowing at noon)

Schofield: 10-12”, .9 SWE Upper T: 4”, .2 SWE

Irwin: 4” Butte: 4”, .2 SWE

Sunday acted as a bit of a transition day as the trough axis exited eastward coinciding with a cold front. The next system embedded in the expansive trough across the US approaches Colorado Monday (2/15) morning. This storm favored the NW mountains extensively. Irwin picked up 14” of 5% snow Monday afternoon through the night. Snorkel-like conditions Tuesday morning in Irwin. See storm totals below.

Monday 2/15-2/16 storm (started snowing 2/15 at 10 am.)

Schofield: .6” SWE Irwin: 14” at 5% Butte: 2”, .1 SWE

As the moisture exited our forecast area Tuesday (2/17), clearer skies brought cold overnight temps with 0’s in the mountains and negatives for town Tuesday night. Winds flipped around to NW and gained strength, with sustained moderate to high gusts Wednesday and Thursday. A lot of fresh snow fell during the first part of the period, and with sustained transporting wind speeds, the alpine snowpack has seen some rearranging.

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 can be found buried 2-6 feet deep depending on where you are in our forecast area. This interface caused very large, widespread avalanche activity throughout the state, and continues to fail with each loading event.

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.

The snowpack in the NW mtns has become blatantly deeper than the SE mtns. Various loading events throughout this summary period caused very large, natural avalanches, such as this one on Schuylkill ridge. As the loading tapered off after Tuesday's (2/16) storm, natural avalanche activity tapered as well. Wednesday might have been the first day in over a week with no reported naturals in our forecast area. That being said, the next day, Thursday (2/18), a large natural avalanche was reported off Avery peak.

While traveling in the NW mountains, obvious signs of instability are not as common to find in comparison to the SE mountains. This is due to how deeply our persistent weak layers are buried. In the SE mtns, with a shallower snowpack, the weak layers can be affected by a human fairly easily. A deeper snowpack in the NW mountains has allowed the persistent slab problem to become more stubborn. However, if you were to find that perfect, shallow, trigger point, you have a good chance of triggering a very large, very dangerous avalanche. Avalanche size increases as you get into exposed, drifted areas on the eastern half of the compass. Windslabs have also developed on leeward, NE, E, and SE aspects. Expect windslabs to be sensitive to the weight of a human, with the potential to step down to a deeply buried PWL, causing a very large and destructive avalanche.

Avalanches

Our first major avalanche cycle from this summary coincided with Friday's night (12/12) and Saturday Mornings (12/13) Storm.

Whetstone BTL ENE D2

Meridian Lake

As the sun came out on Sunday (2/14), we were able to get a look at some of the weekend's destruction

Broad and Deep. Peeler Peak SE

Natural avalanche of Gothic Peak observed from the town of Gothic. (Screengrab from video)

Large Natural above Copper Creek

Avalanche on SE aspect on Gibson Ridge, close to the town of Crested Butte

Incident, accidents, close calls

We did not have any accidents in our forecast zones. However, there were three deaths around the state of Colorado. A snowboarder near Loveland pass was caught and buried while recreating in low angle terrain. Unfortunately, this terrain was connected to steep slopes above, and the debris ran into the low angle zone where he was touring. Two other snowmobilers lost their lives due to avalanches this week. Read the reports here and here. Our hearts go out to the friends and family of the victims.

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

This snowpack is scary! There have been 23 avalanche fatalities in the last 20 days throughout North America. There has never been a better time to recreate outside of avalanche terrain. Keep a careful eye on your slope angles while. Take the time to make a thoughtful route plan with your partners to avoid traveling in, or below avalanche terrain. Stay safe out there.