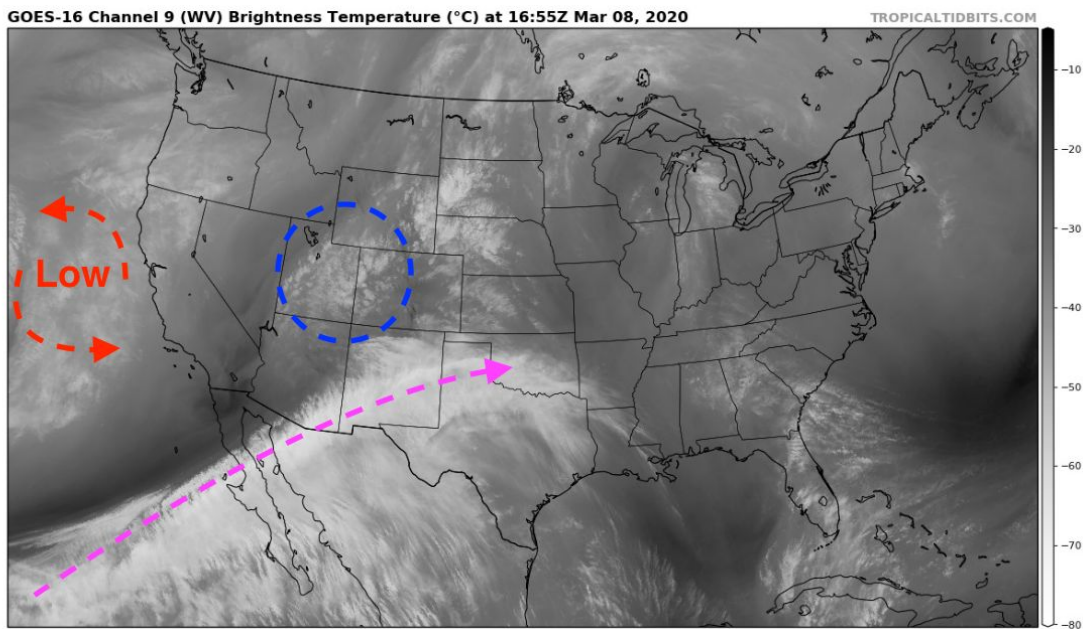


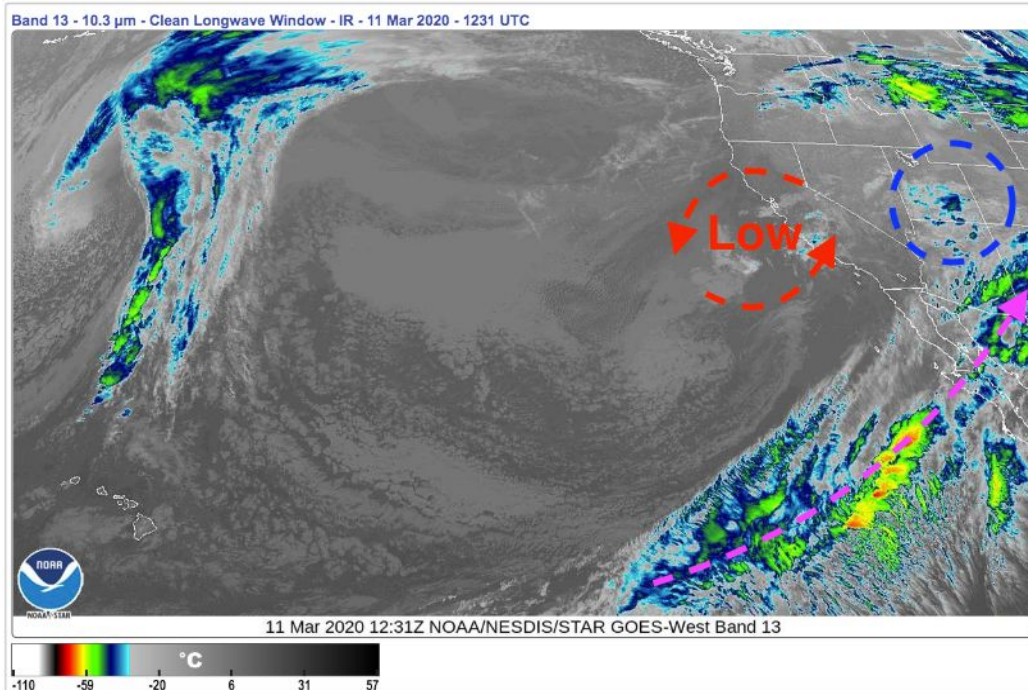
Backcountry Weekly Summary

Staff:	Zach Kinler
Week and Year	March 6-12, 2020
Backcountry zone:	Crested Butte Area

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



A large and slow moving area of Low pressure dominated the weather this week. On 3/8 the main moisture tap remained to our south however we saw 1-4" of snow as some additional moisture pushed north.

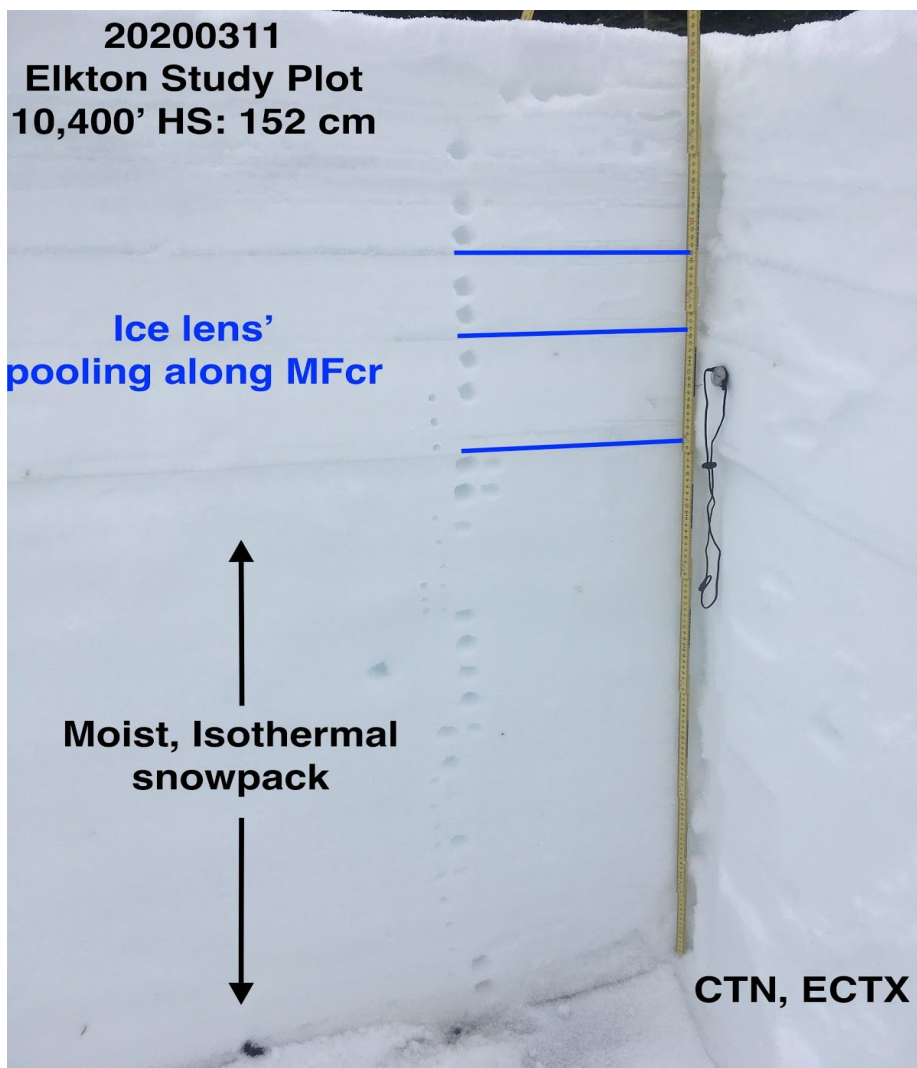


On 3/11, the Low continues to slowly meander towards the coast of California pumping moisture towards Colorado. Another round of wet snow and rain below 10,000' fell during this time under cloudy skies.

This period began on 3/6 with a ridge axis directly overhead and warm SW flow ahead of a mid-level trough. Mid-high level clouds began to move in but this did little to cap heating as we saw our warmest day of the season with freezing level above 12K. As the trough moved closer on 3/7, we saw increasing clouds with periods of sunshine under light to moderate SW winds. Despite more clouds, the freezing level pushed above 11K. The above mentioned mid-level trough moved overhead on 3/8 with warm moist SSW flow and winds 10-20 mph gusting to 50 mph transitioning to west in the afternoon. Overnight lows were moderated because of the warmer air mass and daytime temperatures below 11K were in the upper 30s to near 40F while above 11K remained below freezing. Accumulations were 1-2" of wet snow.

An additional 1-5" of snow fell overnight and into 3/9 with slightly cooler westerly flow. Winds were in the 20s gusting to 50 mph with Partly Cloudy skies in the high country and mostly sunny skies at lower elevations. Mountain lows in the upper teens to low 20s gave way to highs in the upper 30s. WSW flow continued on 3/10 and with winds 10-20 mph and overcast skies, 11K highs were a bit cooler than the previous day topping out just above freezing. 1-2" of wet snow fell during the day. Heading into 3/11, skies cleared overnight allowing temperatures to drop back to around 20F for most mountain locations. Clouds quickly moved in by sunrise with light snow beginning around 11:00. Snow showers were off and on through the afternoon with 1-2" of wet accumulations. Very light rain began falling below 10,000' late in the day and overnight into 3/12. Snow showers dropped 1-3" inches of snow by the morning as temps were 2-7F warmer than the previous night and were hovering around freezing at certain locations below 10,000' where some rain may have fallen. Clouds began to break early morning.

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



[**Click here for full profile and test results**](#)

11/20/19 Interface: Multiple early season storms dropped 1-2 feet of snow throughout our area in October. An extended dry period followed for most of November with warm temps and sunny skies which left the southern half of the compass mostly bare while continuous old snow remained on shady aspects facing N-E from around 10,000 ft. and up. Sheltered areas free of wind and sun harbor the weakest grains. This old snow was buried on 11/20 and is now our layer of most concern. Initially, a thin crust was observed on top of this old snow as seen in this [Paradise Divide Ob](#) with facets and early stage Depth Hoar growing to 4mm underneath. This [Kebler Pass ob](#) highlights this interface and where it was found west of town. Moderate snow and wind loading stressed this layer leading to our first widespread avalanche cycle around 11/30 as seen [here](#). This [Cement Creek Ob](#) shows this layer is more isolated but present at upper elevation drifted spots near and East of town. Check out this [natural avalanche ob](#) from Kebler Pass area highlighting large, persistent slabs failing on this layer. A widespread natural avalanche cycle followed the 12/12 cycle with large avalanches breaking near the ground on this interface. No avalanches were reported to fail on this interface from mid-December through early January until strong northerly winds cross-loaded Westerly slopes near treeline. This put a slab on very weak layers near the ground and led to several large avalanches. While stubborn, large triggers such as [cornice falls](#) or a major loading event are likely the only thing that will awaken this layer. This layer is now buried ~150-250 cm deep.

11/25/19 Interface: Following the 11/20 cycle, the area saw 2 days of sunny skies and cold clear nights which effectively melted or crusted the recent snow from the southerlies while near surface facets and large grain Surface Hoar were able to form on the northern half of the compass. This weak snow is observed on the surface in this [Photo](#) and this [Photo](#). A ski cut released a very small avalanche on this layer in this [Ob](#), and time will tell if this layer remains active with additional loading. At the [Elkton Study Plot](#) on 12/4, propagating results were observed on this layer as the slab on top has settled into a 1F slab with warmer temps. On 12/5 a [rider-triggered D2](#) avalanche failed on this layer. This interface is near the ground where October snow did not exist, and rests on melt forms or large grain facets where snow remained from October. On 1/8 at the Elkton Study Plot, further rounding of the 2 mm facets was observed as well as consolidation into 1F hardness from 4F. On 2/26 this interface was Pencil hard melt forms and rounding facets, well sintered. A major loading event or large triggers from cornice falls will likely be the only way this layer remains active. This interface is generally ~100-150 cm deep.

12/24/19 Interface: After a week of sunny and warm weather, crusts formed on south aspects as well as small surface hoar and near surface facets on the shadier aspects. On 12/26 at the Elkton Study Plot, 1 mm near surface facets were observed at this interface with CT9 Q3 results and ECTN10 results. This [Kebler Pass ob](#) and this [Coon Basin ob](#) highlight this interface on southerlies while this [Paradise Divide area ob](#) illustrates the issue on shady aspects. On 1/1 at the Elkton Plot, this layer was observed as 1.5 mm near surface facets 28 cm below the surface with 1.5" SWE resting on top and hard Q2 CT results. Non-propagating ECT results were seen in this [ob](#) and on 1/8 at the Elkton Study Plot CT and ECT test revealed no failure here while a PST (40/100) SF was observed. Rounding and sintering of grains is occurring in these areas. PST END results less than 50 cm were observed the last three weeks at the Elkton plot on this interface which remains somewhat weak. Several human-triggered avalanches in the upper snowpack this week point to this layer as a possible culprit. This large [scary avalanche](#) is the most recent evidence of this weak interface. PST results on 2/26 on this layer were PST 75/100 (END) with continued rounding. Given the depth and warming trend, facets around this layer are much less sensitive and not expected to be reactive. It is now buried ~70-120 cm.

1/9/20 Interface: Following the New Year's storm, skies cleared Colorado style with very cold nights and sunny skies during the day with freezing level pushing to 11K. This created thin crusts on southerly slopes while near surface facets and surface hoar formed on shady slopes. This [Kebler Pass area ob](#) highlights this layer on each side of the compass. This [Paradise Divide ob](#) documents propagating ECT results on a crust/facet combo. This interface is a scary [Surface Hoar](#) layer which produced an intentionally triggered avalanche in the Anthracite range on 1/13. Recent human-triggered avalanches in the upper snowpack point to this layer as the culprit. On 2/26 at the Elkton plot site this layer continues to show rounding and sintering with neighboring slabs with no alarming results on short and long column test. Given the depth and warming trend, facets around this layer are much less sensitive and not expected to be reactive. This layer is buried ~60-100 cm.

2/3/20 Interface: Temperatures the first 2 days of February were well above average with 2/2 being the warmest day of the season. This led to the formation of crusts on many slopes from E-S-W. This was followed by some of the coldest temperatures of the season promoting faceting around the crust. CBAC staff documented this layer in this ob from a [West aspect](#). This [observation from NNE aspects](#) highlights this layer on the shady side of the compass as 1 mm facets. Following the 2/6-2/7 cycle this [Ruby Range ob](#) shows several large avalanches likely initiating on this interface, with some of them stepping down. Recent [very large avalanches](#) on south aspects appear to be failing

near this interface in the upper snowpack and stepping down. This [Crested Butte area](#) ob from 2/27 shows stubborn but not unreactive results on this layer below treeline. On 3/11 on a [NE slope below tree line](#), moderate propagating results were observed on this layer which is slightly moist but 2 mm facets are soft and weak. While currently unreactive, a large loading event may bring this layer back into play especially in snowpacks less than 150cm. This layer is buried ~40-80 cm.

2/24/20 Interface: On 2/23 a closed low tracking overhead produced ~6" of snow around the area before skies cleared allowing the late February sun to form a crust. On 2/24 a shortwave trough moved through in NW flow bringing a very strong cold front with it. An additional 2"-6" of very low water content snow fell before temperatures plummeted to well below 0F. This very cold period quickly faceted that new snow which is resting on a crust on the southern end of the compass. On 3/4 at the Elkton Study Plot, ECTP 17 results and PST 30/100 (END) were observed on this layer which was buried 33 cm. Recent warming and free water has led to rounding and sintering of this layer on solar aspects while no evidence exists on the shady aspects of any issues at this interface.

Avalanches



This small wet slab avalanches released from a steep easterly slope on 3/6 after several days of strong solar and warming.

Avalanches this week were confined to surface instabilities related to heating and wind transport. We have seen incremental amounts of new snow with the sun heating this snow on southerlies while the wind built slabs at upper elevations on the east side of the compass. All avalanches were small (D1-D1.5) and isolated in steep and extreme terrain. As the snowpack transitions this spring, we will continue to see a mix of dry and wet snow avalanches.



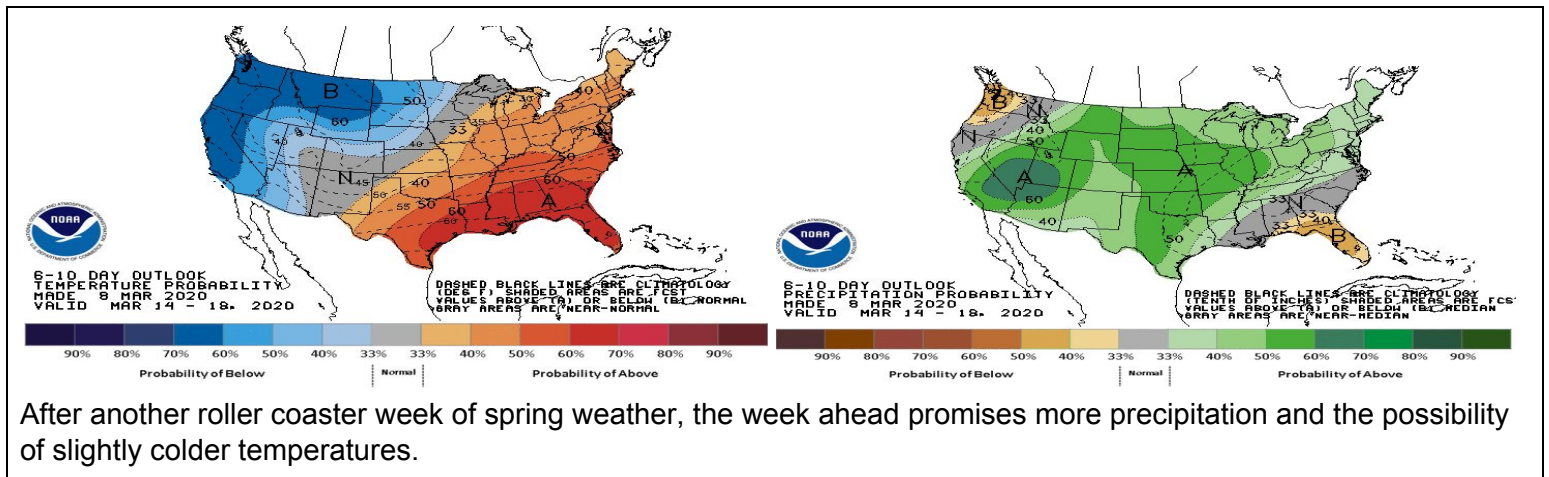
Two small skier-triggered Wind Slabs on steep ENE terrain in the Paradise Divide area. Snow has remained mostly dry at these upper elevation shady slopes with winds transporting small amounts of new snow.

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Incident, accidents, close calls

There were no incidents, accidents or close calls reported to the CBAC this week.

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



After another roller coaster week of spring weather, the week ahead promises more precipitation and the possibility of slightly colder temperatures.