

## Big natural avalanches on Flathead Pass

Flathead Pass  
Bridger Range  
2/15/2020  
Code  
HS-N-R4-D3-O  
Elevation  
8000  
Aspect  
NE  
Latitude  
45.96840  
Longitude  
-111.02100  
Notes

"Quick Obs from a tour up to the skiing just south of Flathead Pass [2/17/2020]. We headed that direction for some low-angle protected tree skiing and, instead, found evidence of a widespread natural avalanche cycle from 2~3 days ago.

There were 3 main avalanches with similar characteristics: HS - N - R4 - D3 - O.

- Crowns topped out around 8000' with large amounts of hanging snow (on steep slopes) above. Interestingly, the crowns connected down slope as low as 7800' and jumped from tree to tree along convexities. The avalanches' crowns ranged from 100' wide to over 500' wide.
- The avalanches failed on 4F- 1.5mm facets above the Thanksgiving crust, which was substantially harder than I have seen in the southern Bridgers.
- The avalanches stepped down to well-developed [depth hoar](#) (below the crust) in a few locations.
- The average crown depth was ~140cm where we felt safe looking (near bottom of crown) but was significantly more shallow near some trees.
- Conducted a quick crown profile and some tests. The standout results are PST 25/120 END x3 (we conducted the PST at a spot where the [weak layer](#) was buried 120cm deep) on the [persistent weak layer](#) with no notable results in two separate location ECTs and additional deep tapping...).
- The debris piles extended to previous old-growth maximums (extending the path of at least one avalanche) and had many snapped trees up to 10" in diameter deposited within."

Number of slides  
3  
Number caught  
0  
Number buried  
0

Avalanche Type

Hard slab avalanche

Trigger

Natural trigger

R size

4

D size

3

Bed Surface

O - Old snow

Problem Type

Persistent Weak Layer

Slab Thickness

140.0 centimeters

Vertical Fall

500ft

Slab Width

500.00ft

Weak Layer Grain type

Faceted Crystals

Weak Layer grain size

1.50mm

Weak Layer Hardness

4F-

Images

[Flathead Crown Profile - 17 Feb](#)

[Natural avalanche near Flathead Pass](#)

Slab Thickness units

centimeters

Single / Multiple / Red Flag

Multiple Avalanches

Advisory Year

[19-20](#)