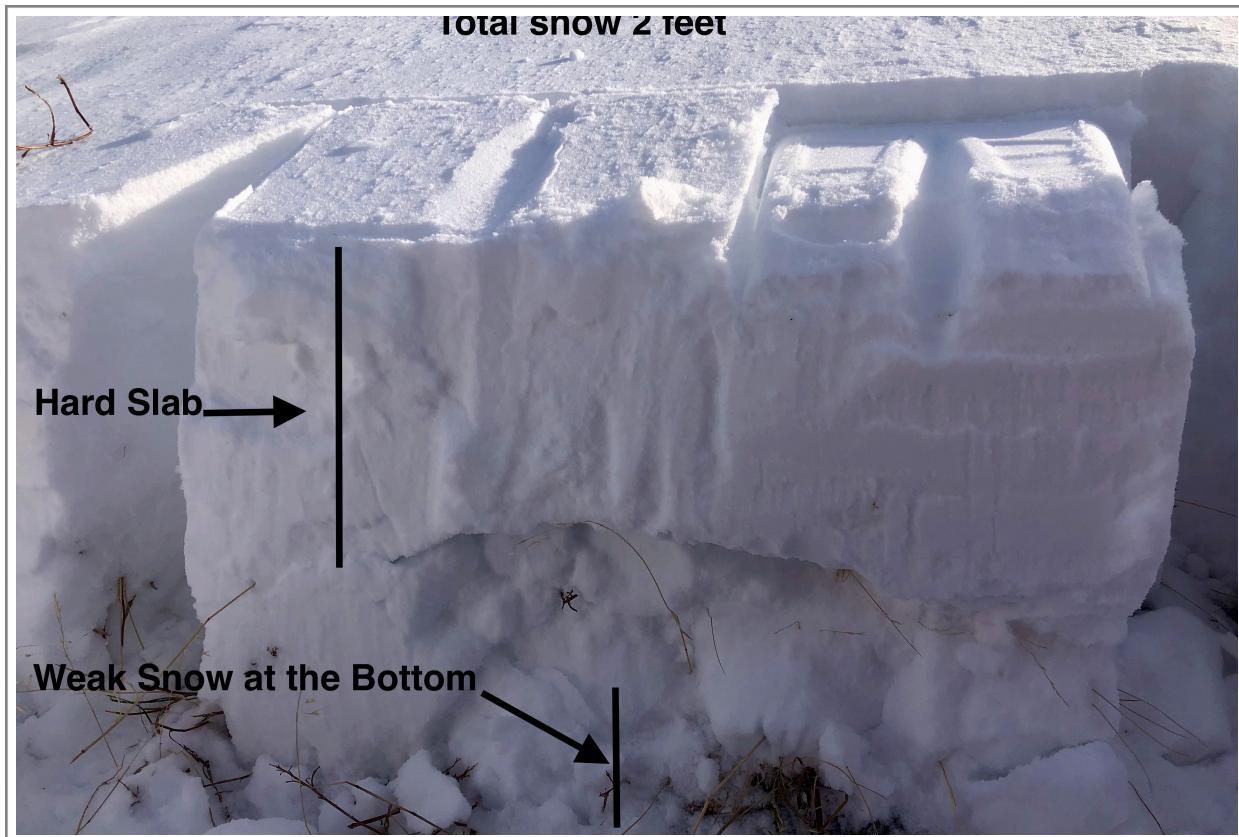


MT Jumbo

02/18/2021



Travis Craft/Tim Laroche

Avalanche conditions and recommendations

Snowpack and Avalanche Conditions

Tim Laroche and I assessed the avalanche conditions on Mt. Jumbo on 02/17/2021 and 02/18/2021. On 02/17/2021, we flew a drone with Randy as our pilot to look at the slide paths outlines in the MT Jumbo avalanche atlas. The drone flight showed us the quality and detail of pictures that the drone could produce. After reviewing the photos and videos, we were able to formulate a plan to use the drone to assist us in making avalanche assessments and recommendations. Tim and I made a plan to do a snowpack assessment on 02/18/2021 and have Randy Okon fly the drone while we were on the mountain to help identify markers to use for snow depth assessment from the drone. Tim and I could do snowpit tests and assess snowpack depths and avalanche potential.

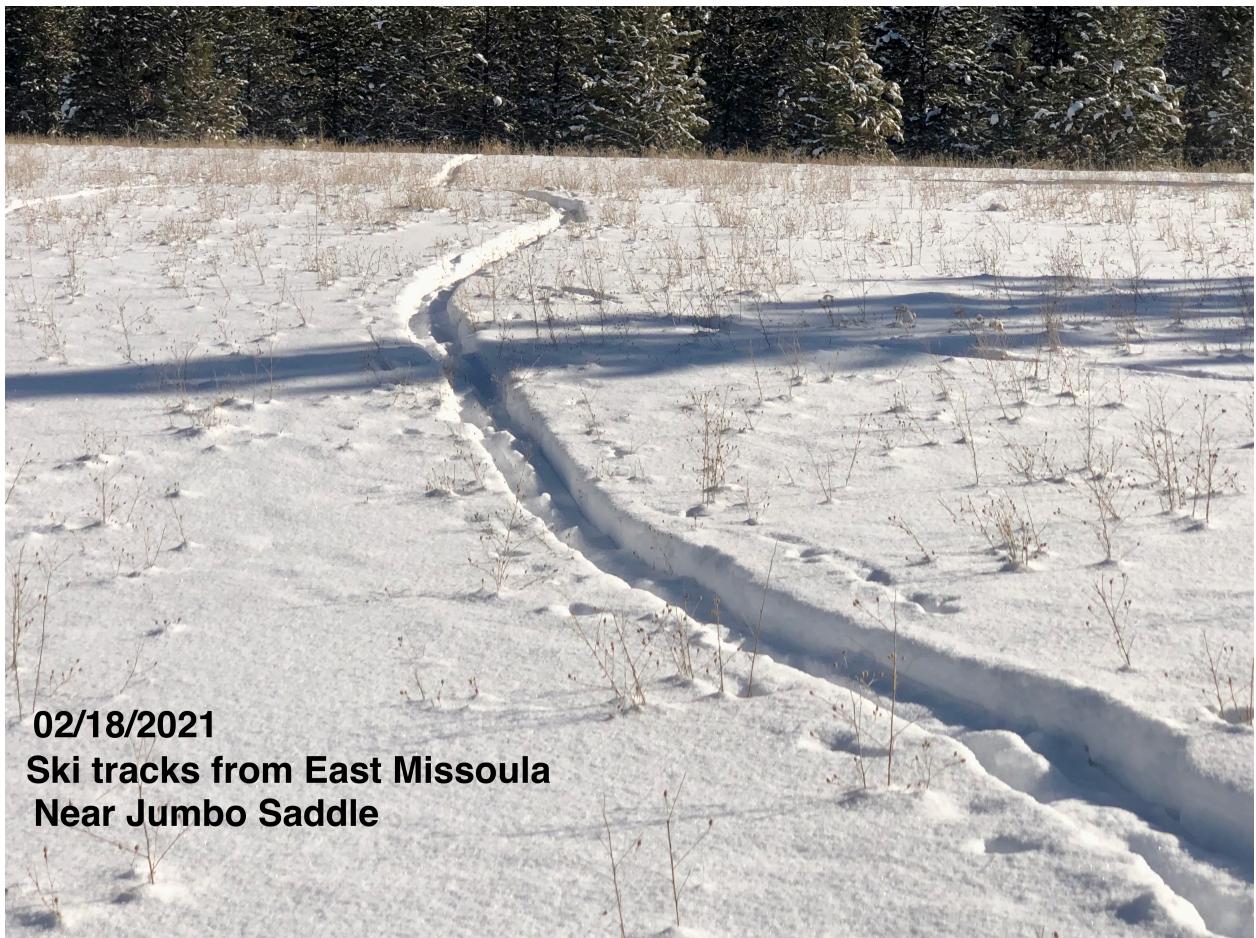
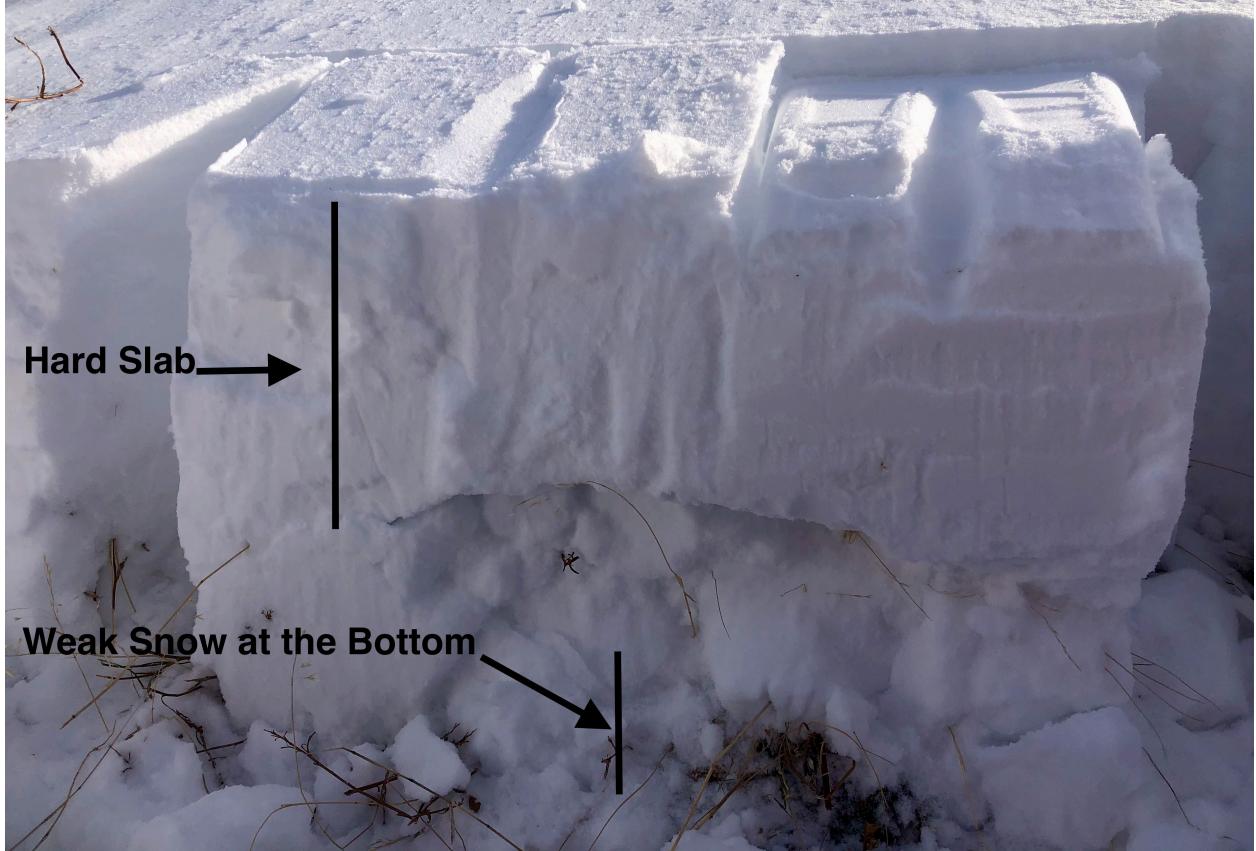
On 02/18/2021, Tim and I left the Lincoln Hills trailhead at approximately 0945 and traveled to Mt Jumbo's summit. We assessed the start zones of the avalanche paths from the avalanche atlas. We came across old ski tracks(pic 01) in the Jumbo saddle from East Missoula. The snowpack varied in depth from a couple of inches to 2 feet in wind-loaded areas. We did pit tests(pic 3) in the Holly Street Slide path; we found 2 feet of snow in the start zone. We performed stability tests and found an unstable snowpack. There is a hard snow slab with weak snow at the base near the ground(pic 02). The recipe for an avalanche is present. All that is needed is a trigger: a large loading event or an artificial trigger such as a person. We inspected the East Missoula slide paths and deemed that there is not enough snow to pose a threat.

Recommendations for Public Safety

We recommend alerting the public that they should respect winter closures. Check signage and fencing at entrance points. There is a recipe for an avalanche in start zones. We are working with Randy Okon as our drone pilot, identifying markers to assess snow depth. This weekend's weather should help with warming temperatures reducing the avalanche hazard. Winter closures should reduce the chance of a human-triggered slide. The drone gives us the ability to do snow depth assessments remotely and not have to go onto the mountain if flyable conditions exist. Tim and I will continue to monitor conditions remotely as weather changes and provide updates when needed. We are working with Randy Okon to develop flight paths to assess the slide paths from the Mt Jumbo avalanche atlas. Creating these flight paths gives us the ability to be proactive with weather changes and changing avalanche conditions.

Mt Jumbo 02/18/2021

Total snow 2 feet

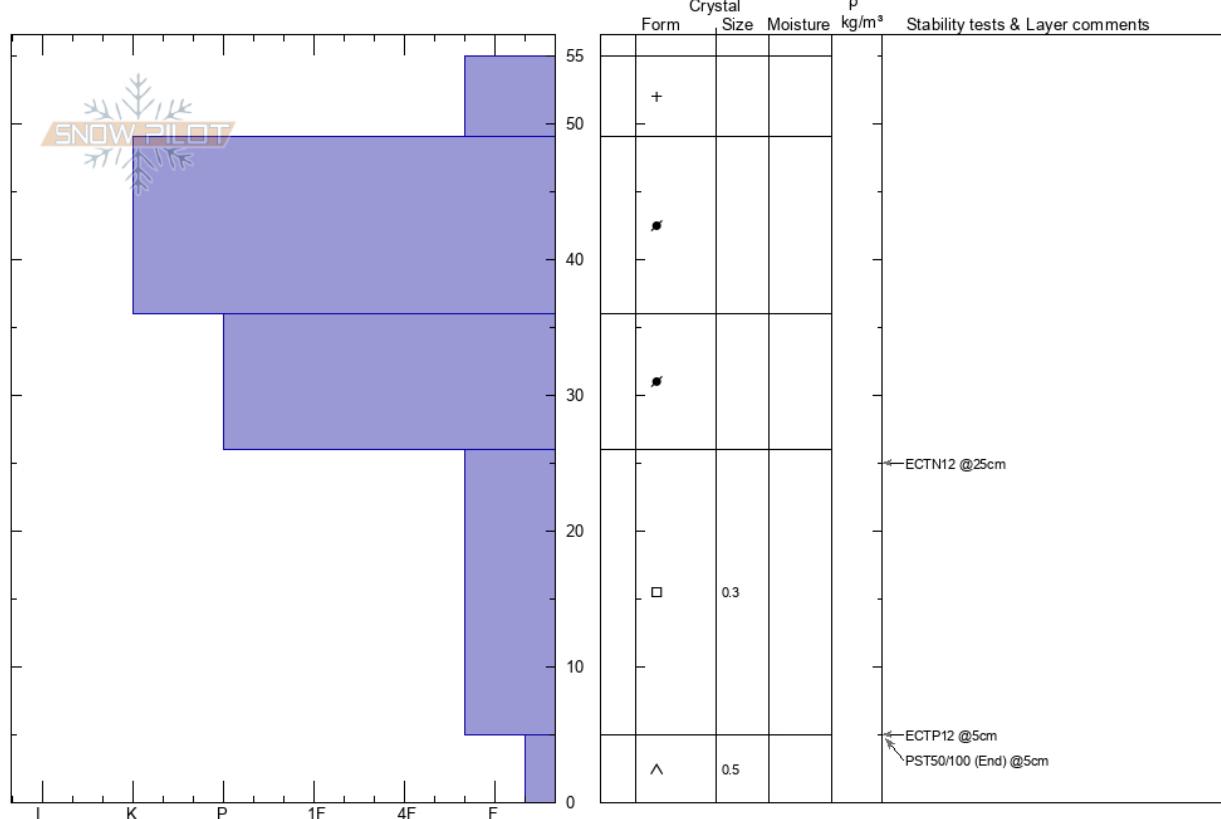


Mount Jumbo
Rattlesnake Mtns
MT
Elevation: 4370 ft
Aspect: 304°
Specifics: Cracking

Timothy Laroche
02/18/2021 - 12:30pm
Co-ord: 46.87327N, -113.96485W
Slope Angle: 33°
Wind Loading: previous

Stability: good
Air Temperature:
Sky Cover: CLR
Precipitation: NO
Wind: SE Calm

HS: 55 Layer Notes:
PF: 6 5-0cm: Problematic layer



Notes: Area of observations is closed to public traffic December 1-March 15 for Winter wildlife protection

