

Deep Slab Instability Characterizing the Phenomena - Part 1

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Deep slab avalanches cause property damage and kill people. A better understanding of the characteristics of deep slab avalanches could increase the effectiveness of mitigation efforts. The Bridger-Teton National Forest Avalanche Center has a database with over 18,000 avalanche events. Part 1 of this study has isolated 800 deep slab avalanches in this database for further investigation. A simple database search indicates these deep slab avalanches are generally larger, harder and tend to occur more frequently in December and January than other avalanche types. A large seasonal variation was found in the frequency of the occurrence of these deep slab events. Knowledge of load rates and load rate durations necessary to release deep slab avalanches and snow settlement rates observed as stability is gained would be useful to manage deep slab instability. Complex database searches are being conducted in an effort to gain insight into this important topic. The results of these efforts will be reported as Part 2 of this study.