

Forest-destroying avalanches on the rise due to clear-cut logging

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Summary: Scientists have been studying the impact of clear-cut logging on avalanche terrain in British Columbia. Understanding avalanche behavior and its destructive potential is an important factor in assessing risk of clear-cut logging of mature forest timber. A new article presents data collected from locations where avalanches have been released due to clear-cut logging; These data demonstrate the adverse effects of poor logging practices.

FULL STORY

Scientists with the UBC Avalanche Research Group have been studying the impact of clear-cut logging on avalanche terrain in British Columbia. Understanding avalanche behavior and its destructive potential is an important factor in assessing risk of clear-cut logging of mature forest timber. An article just published in the *Canadian Geotechnical Journal* presents data collected from locations where avalanches have been released due to clear-cut logging; these data demonstrate the adverse effects of poor logging practices.

"The idea of this study was to be able to predict, in a probabilistic sense, how far avalanches can penetrate into forest cover. It is important not only in logging applications but also for land-use planning in general," says author Dr. Dave McClung of the UBC Avalanche Research Group. "The runout distance of an avalanche that penetrates forest cover can only be predicted using the methods in this paper. Avalanche dynamic models cannot be used for such an application since they cannot account for the extra resistance of forest cover. If facilities -- buildings, roads, etc. -- are below avalanche terrain, planners need to know the chances that destructive avalanches can reach such facilities. This article contains the methods and data for doing so."

Dr. Ian Moore, Editor of the *Canadian Geotechnical Journal*, commented "We greatly value research publications in the Journal having a practical focus. This study from Dr. McClung and his colleagues is a wonderful example of work of high scholarly value having very significant safety implications. The result will be management of resources to improve both commercial and safety outcomes associated with optimized forestry practices."

Story Source:

Materials provided by **Canadian Science Publishing (NRC Research Press)**. *Note: Content may be edited for style and length.*

Journal Reference:

1. G. Anderson, D. McClung. **Snow avalanche penetration into mature forest from timber-harvested terrain**. *Canadian Geotechnical Journal*, 2012; 49 (4): 477 DOI: [10.1139/t2012-018](https://doi.org/10.1139/t2012-018)
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