

The Canadian Avalanche Centre's long-range forecasting programme

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The Canadian Avalanche Centre (CAC) provides non-commercial backcountry users with regional avalanche forecasts and Special Public Avalanche Warnings in western Canada to support pre-trip planning and on-slope decision-making. To encourage pre-trip planning, danger ratings are issued daily with lead times out to day four. Special Public Avalanche Warnings are issued when periods of elevated risk are identified. These periods are often forecast with the six to ten day lead time. Publicizing information well in advance is imperative to encouraging people to plan appropriate trips or re-consider their objectives.

This paper discusses the methodology used for producing long-range (6 to 10 day) avalanche outlooks. Ensemble weather products, their interpretations, and some of their inherent limitations are discussed. I show how the CAC integrates existing snowpack structure with long-range weather forecasts to facilitate strategic planning. The resultant "Period Strategies" allow CAC forecasters to work out approaches that improve forecasts and maximize the effectiveness of additional warnings. Finally, the paper assesses the CAC's experience with the effectiveness of long-range avalanche outlooks and discusses ideas for future development.