

Adding significant accuracy beyond what weather models alone can achieve

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ABSTRACT

One of the most important inputs into a winter road maintenance decision support system is an accurate weather forecast. A common source of weather forecasts is raw model data which has limitations in forecast accuracy when compared to weather forecasts edited by a meteorologist. Combining the knowledge a meteorologist with an intuitive system to edit a weather forecast has outperformed what weather models alone can achieve. This presentation identifies key limitations of models in precipitation and pavement temperature forecasting. It then explains methods that have been proven to overcome these limitations to significantly improve forecast accuracy over what weather models alone can provide. One of the key methods is the use of observational data, including RWIS data, to enhance forecast accuracy. Quantitative analysis of these methods will be provided, and the practical benefits for road maintenance organizations will be brought out as well.