

## **ITS for Reducing Truck Overturn Crashes Due to High Winds at Bordeaux, Wyoming**

Primary Author: Edward Offei

This paper develops an intelligent high wind warning system for reducing the risks of truck overturn crashes due to high winds on Interstate 25 near Bordeaux in Wyoming. High wind conditions in Wyoming lead to frequent truck overturning crashes, particularly during the winter season. This paper develops a multiple logistic regression model that explores the relationship between the likelihood of overturning truck crashes and weather variables from a nearby Road Weather Information System (RWIS) at the time the crash occurred. Based on the results of the model and historical truck crash data, a three operational level high wind warning system is introduced for use by the Wyoming Department of Transportation (WYDOT) to improve truck safety along the hazardous corridor on Interstate 25.