

**Road Weather Management Program  
Best Practices for Road Weather Management**

**PUBLICATIONS LIST**

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**TITLE:**

THE EFFECT OF VARIABLE MESSAGE SIGNS ON THE RELATIONSHIP BETWEEN MEAN SPEEDS AND SPEED DEVIATIONS

**ABSTRACT:**

This research studies the effect of DMS on the relationship between hourly cross-sectional mean speeds and speed deviations. This section of I-90 in the vicinity of Snoqualmie pass, Washington is a rural freeway location subject to adverse weather conditions, and experiences over seventy-five reported vehicle crashes annually. DMS were installed to reduce crash potential by effective speed and traffic flow management. Aggregate results on vehicle speeds and vehicle speed deviations at the hourly level show that there is a significant decrease in mean speed when the DMS are on, along with a significant increase in speed deviation.

**SOURCE(S):**

Transportation Research Board 81st Annual Meeting, Search TRIS <http://199.79.179.82/sundev/search.cfm>

**Keyword(s):**

DMS, Speed, Adverse weather, Crashes