

## **FHWA's Traffic Noise Model Validation Study: Phase 1 Results**

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Over the past few years, the Volpe Center Acoustics Facility in support of the Federal Highway Administration (FHWA) has been conducting a study to assess the accuracy and make recommendations on the use of FHWA 's Traffic Noise Model (TNM). The TNM Validation Study involves highway noise data collection and TNM modeling for the purpose of data comparison. Phase 1 of the study has been completed. For this phase, over 100 hours of traffic noise data were collected at seventeen highway sites around the country. The seventeen sites included: open areas next to the highway with acoustically soft ground (e.g., lawn); open areas with acoustically hard ground (e.g., pavement or water); and areas next to the highway with an open area behind a single noise barrier. In comparing the measured sound levels to the TNM-predicted sound levels, several variables were examined, including distance from the roadway, wind conditions, and percentage of heavy trucks. Highlights of the results will be presented.