TRANSPORTATION POOLED FUND PROGRAM
QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): FHWA

INSTRUCTIONS:
Project Managers and/or research project investigators should complete a quarterly progress report for each calendar quarter during which the projects are active. Please provide a project schedule status of the research activities tied to each task that is defined in the proposal; a percentage completion of each task; a concise discussion (2 or 3 sentences) of the current status, including accomplishments and problems encountered, if any. List all tasks, even if no work was done during this period.

Transportation Pooled Fund Program Project # *(i.e, SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX)* TPF-5(158)	**Transportation Pooled Fund Program - Report Period:** ☐ Quarter 1 (January 1 – March 31) ☐ Quarter 2 (April 1 – June 30) ☑ Quarter 3 (July 1 – September 30) ☑ Quarter 4 (October 1 – December 31)	
Project Title: FHWA Traffic Noise Model: Version 3.0 Software Development		
Name of Project Manager(s): Mark Ferroni	**Phone Number:** 202.366.3233	**E-Mail** mark.ferroni@dot.gov
Lead Agency Project ID: FHWA	**Other Project ID (i.e., contract #):** IAA with the U.S. DOT Volpe Center	**Project Start Date:** July 2007
Original Project End Date: December 2012	**Current Project End Date:** December 2012	**Number of Extensions:** 0

Project schedule status:

☐ On schedule ☐ On revised schedule ☐ Ahead of schedule ☑ Behind schedule

Overall Project Statistics:

Total Project Budget	Total Cost to Date for Project	Percentage of Work Completed to Date
$386,500	NA due to additional funding by FHW	85%

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
NA due to additional funding by FHWA	NA due to additional funding by FHW	100%

Project Description:

The FHWA Traffic Noise Model (FHWA TNM) was originally released in 1998 and has undergone several upgrades. On May 2, 2005 the FHWA TNM, Version 2.5 became the required traffic noise prediction model to be used on Federal-aid highway projects.

FHWA TNM Version 3.0 Software Development:
FHWA is currently funding the development of the FHWA TNM Version 3.0. The main objective of Version 3.0 is to contemporize the software, making sure that the FHWA TNM does not become obsolete as computers/operating systems advance. Contemporizing FHWA TNM will allow for more efficient upgrades and future maintenance.

The pooled fund participants at the time that this project was started, identified the following enhancement to be included in TNM version 3.0:

1. Barrier Reflections
2. Enhanced Contours
3. Multi-lane tools
4. GIS Import/Export
5. Enhanced Contours

The scheduling and progress of this pooled fund is not independent of itself, but rather depending on the continual progress and funding of the overall version 3.0 development. The above referenced project schedule is accurate for the overall completion of TNM version 3.0. The specifics of percentages of funding remaining is difficult to specify since the FHWA continually adds funding to the above enhancements and other 3.0 development and since a vast majority of enhancements are overlap and/or coincide with each other.

Progress this Quarter (includes meetings, work plan status, contract status, significant progress, etc.):

A status update was provided during the ADC40 summer meeting in Ashville North Carolina, July 2012.
Starting in August/September 2012, the FHWA started in a new direction with the FHWA TNM v3.0. The reason for this is because in 2008, the TNM 3.0 development team, consisting of FHWA and Volpe Center staff, selected the Manifold 8.0 Professional Runtime library to incorporate GIS functionality and for 2D graphics in the FHWA TNM 3.0. In late 2011 the FHWA Office of Chief Council, expressed concerns about requiring use of TNM 3.0 due to the presence of Manifold since users would have to purchase a license from a single proprietary source to use software required by regulation. The FHWA would not be able to require use of TNM 3.0 until such a time as other software was deemed consistent with the methodology of TNM per 23 CFR 772.9(a). The FHWA decided to continue development as planned and work with interested software developers to satisfy 772.9(a) and pursue development of an alternate version(s) of TNM that would not include use of software with a fee based license to incorporate 2D graphics and GIS functionality following completion of TNM 3.0. During the summer of 2012, the development team discovered that basic functionality that appeared to be present in the Manifold 8.0 Professional Runtime library was not. The FHWA also learned that Manifold had developed a next generation product to replace Manifold. These issues led to reconsideration of the approach to completing TNM. At this point, FHWA decided that the best course of action would be to complete the acoustic code for TNM 3.0 and seek alternative approaches to incorporate the acoustics of TNM 3.0 inside another CAD or GIS framework. To achieve this, the development team will complete development of the acoustic functionality of TNM 3.0 and provide that to FHWA. The FHWA plans to issue pursue a variety of alternative approaches to complete TNM 3.0 development.

We are working to ensure that all items funded by this pooled fund are either provided by the Volpe deliverables or by alternate approaches. The FHWA plans to pursue alternate approaches via a Broad Agency Announcement (BAA).

Anticipated work next quarter:

Continue to develop/complete the deliverable with Volpe and issue the BAA to solicit alternate ways to approach the application of the TNM v3.0 and the functionality funded by this pooled fund.

Significant Results:

Anticipating the release of the BAA in the first quarter of 2013 and continued progress with the Volpe deliverables.

Circumstance affecting project or budget. (Please describe any challenges encountered or anticipated that might affect the completion of the project within the time, scope and fiscal constraints set forth in the agreement, along with recommended solutions to those problems).

The new direction that the FHWA is pursuing for the FHWA TNM v3.0 has affected the project schedule and budget, but it is felt that this new direction is the best long term solution for TNM.

Potential Implementation:

Pending consistency with the FHWA TNM, there is the potential of multiple applications for noise models for use on Federal-aid highway projects in accordance with 23 CFR 772.