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 U.S. DOT Volpe Center & IDIQ task order with RSG	**Project Start Date:** July 2007
Original Project End Date: December 2012	**Current Project End Date:** January 2015	**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
$900,000	$461,500, plus FHWA funding	80%

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.):

TNM 3.0 development is on schedule for completion near the end of 2014. However, a release date has not been set. There will be additional testing after completion, after which a validation study will be done prior to general release.

The intent is to allow TNM 3.0 to be used on Federal-aid projects upon release, and there will be a phase-in period of yet-to-be-determined length before TNM 3.0 is required for use.

Instituting a requirement to limit use to TNM 3.0 (and subsequent versions) requires a regulatory change to 23 CFR 772, which takes time. That process would not be started until TNM 3.0 is out and thoroughly tested.

Users will probably be able to continue using TNM 2.5 for at least two more years from March 2014 and probably closer to three years in order to get through validation studies, phase-in and rulemaking limiting modeling to TNM 3.0.

RSG provided their final deliverables. An interagency agreement with Volpe in being processed to do the following: 1. Testing TNM v3.0 against the original TNM validation runs and 2. research why the differences between TNM v2.5 and TNM v3.0 as identified by the sensitivity testing are occurring. Both tasks would include a document explaining the results. (this work is partially being funded by the $150K received from PennDOT)

It is FHWA's intent to provide an update at the ADC40 Summer Meeting in Portsmouth NHTNM 3.0 development is on schedule for completion near the end of 2014. However, a release date has not been set. There will be additional testing after completion, after which a validation study will be done prior to general release.

Anticipated work next quarter:

Contract with Volpe and have them begin the two tasks described above.

Significant Results:

The RSG work showing differences between TNM versions. The work on the BAA is currently on schedule.

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 (and issuing the BAA) 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.