

TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): Virginia DOT (VDOT)

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>(i.e., SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX))</i> TPF-5(141)		Transportation Pooled Fund Program - Report Period: <input type="checkbox"/> Quarter 1 (January 1 – March 31) <input type="checkbox"/> Quarter 2 (April 1 – June 30) <input type="checkbox"/> Quarter 3 (July 1 – September 30) <input checked="" type="checkbox"/> Quarter 4 (October 1 – December 31)	
Project Title: <p style="text-align: center;">Pavement Surface Properties Consortium: A Research Program</p>			
Name of Project Manager(s): Kevin Kenneth McGhee		Phone Number: (434) 293-1956	E-Mail Kevin.McGhee@VDOT.Virginia.gov
Lead Agency Project ID: 82650		Other Project ID (i.e., contract #):	Project Start Date: 7/1/2006
Original Project End Date: 6/30/2011		Current Project End Date: 6/30/2015	Number of Extensions: 1

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
\$1,695,603	\$1,660,686	98%

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
\$35,754 (2%)	\$35,754	98%

Project Description:

Through a regional pooled fund, this program of research focuses on optimizing pavement surface texture characteristics. The initial focus of the program was on the application of inertial and laser-based equipment for measuring pavement surface properties, but the scope has been expanded based on the guidance provided by the Technical Advisory Committee. The program has included the following main broad activities:

- ✓ Establishment equipment comparison and verification facility and hosting of annual equipment roundups.
- ✓ Evaluation of new and existing methods and technologies for measurement of functional highway surface properties and providing enhanced pavement surfaces.
- ✓ Conducting specific studies that require measurement of pavement surface properties under controlled traffic or environmental conditions on different surfaces. These have included (among others):
 - Investigation of seasonal effects on friction measurements,
 - Evaluating the potential adoption of the International Friction Index (IFI), and
 - Determining speed adjustment factors for locked-wheel friction trailers.
- ✓ Supporting the FHWA Continuous Friction Measurement Equipment (CFME) Technology Deployment program.
- ✓ Conducting technology transfer activities, such as: making presentations at national and international conferences and meetings, organizing training workshops, publishing journal papers, and organizing conferences and symposia.

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

- The Grip Tester Loan Program has both Grip Testers operational. One of the units has been used by VTTI to assist VDOT with measurements.
- The second skid-tester calibration was performed on November 18-20. The research team calibrated the skid trailer from state of Connecticut. Invitations will be sent to all other members who have expressed interest in this service.
- The week of May 19-23, 2014 has been set apart to conduct the 2014 Equipment Comparison, also known as the 2014 Rodeo.
- The consortium TAC met in conjunction with the 25th Road Profile Users' Group (RPUG) meeting in San Antonio.
 - It was agreed to continue the Pooled Fund for another two years, pending approval of funding from each state.
 - A draft 2013 Rodeo Report was distributed to all the members of the TAC during the Road Profile Users' Group (RPUG) meeting in San Antonio. TAC members have been asked to provide the feedback, after which the changes will be incorporated in the final report.
 - The next TAC meeting will be held at the Pavement Evaluation 2014 conference in Blacksburg, VA
- The research team delivered two presentations at the 25th Road Profile Users' Group (RPUG) meeting in San Antonio.
- Revised manuscripts for several papers related to surface properties for the 93rd Annual Meeting of the Transportation Research Board in January 2014. There will be 2 papers from activities developed in parallel to the consortium to be presented in session 830 Tire-Pavement Noise and Quieter Pavements:
 - "Tire-Pavement Noise Evaluation and Equipment Comparison Using Onboard Sound Intensity Methodology over Several Pavement Surfaces in Virginia," paper 14-5210, scheduled for presentation.
 - "Short-Term Effect of Pavement Surface Aging on Tire-Pavement Noise Measured with Onboard Sound Intensity Methodology" paper 14-3902, scheduled for presentation and recommended for publication.
- Gerardo Flintsch participated in the ASTM E-17 Committee meeting in Jacksonville December 9-10, 2013 where he delivered the 2013 Kummer Lecture.
- Two students partially supported by this projects presented their work at the 17th International Road Federation World Meeting & Exhibition, Nov 10-14, 2013, Riyadh, Kingdom of Saudi Arabia. Their participation was sponsored and funded by the International Road Federation (IRF) but their papers used data collected as part of the consortium.
 - "Estimation of Pavement Macrotecture from Hot-Mix Asphalt Properties," (Azzurra Evangelisti)
 - "Effect of Air Temperature and Vehicle Speed on Tire/Pavement Noise Measured With OBSI Methodology," (Daniel Mogrovejo).

Anticipated work next quarter:

- Continue to support the organization of the Pavement Evaluation 2014 conference in conjunction with RPUG and other members.
- Work on the presentations for *Transportation Research Board Annual Meeting* to be ready for the meeting in January 12-16, 2014 in DC.
- Start the organization of the *8th Annual Surface Properties Rodeo* to be held in Blacksburg on May 19-23, 2013 at the Smart Road. Preparations will begin this quarter with the partners and seeking invited equipment.

Significant Results:

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

Potential Implementation: