

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 checked="" type="checkbox"/> Quarter 2 (April 1 – June 30) <input type="checkbox"/> Quarter 3 (July 1 – September 30) <input 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: 3/31/2016	Number of Extensions: --

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
\$1,890,581	\$1,782,893	94%

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
\$30,679 (1.6%)	\$30,679	94%

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 10th Annual Surface Properties Rodeo was held at the Smart Road in Blacksburg on June 1–5, 2014.
 - Representatives from the five consortium members (Connecticut, Georgia, Pennsylvania, South Carolina, and Virginia DOT) and several invited guests (International Grinding and Grooving Association – IGGA, Ohio DOT, International Cybernetics Corporation – ICC, FHWA, and WDM Inc.) participated in the event. The invited attendees collaborated by providing guidance and/or training on the locked-wheel skid tester calibrations (ICC).
 - Six high-speed profilers participated in the rodeo: 2 from Georgia, 2 from Pennsylvania, 1 from South Carolina and 1 from VTTI. Two profilers from Georgia and the one from Pennsylvania have the new wide-spot laser (Gocator) that works similar to the Ro-Line lasers used by the VTTI profiler. Pennsylvania also brought a single wheel-path single spot (SS) profiler mounted on a four wheeler tractor, typically used for fresh PCC profiling. Georgia did too, but was unable to fully use it.
 - Six friction devices, locked-wheel skid testers, participated in the Rodeo: (1 from Connecticut, 1 from Georgia, 1 from Pennsylvania, 1 from South Carolina, 1 from Virginia DOTs, and the last one from IGGA). Four of the locked-wheels testers used ribbed tires for testing, and the other two smooth tires.
 - As part of the services rendered to the consortium members, locked-wheel skid tester calibrations were carried during the Rodeo, prior to the friction testing. This allows the before and after comparison for each individual device and the collective group. The skid testers that were calibrated during the Rodeo were from Connecticut, Georgia, South Carolina, Virginia, and IGGA, for a total of five.
- The Consortium Technical Advisory Committee (TAC) also met during the rodeo.
 - Three presentations were made with the participation of all attendees,
 - Enhancing Pavement Surface Macrotecture Characterization
 - Road-Tire-Vehicle Interaction, the highway perspective
 - Sideway-force Coefficient Routine Investigation Machine (SCRIM)
 - The group agreed to hold a mid-year TAC meeting to discuss the results of the 2015 Rodeo in conjunction with this year's RPUG meeting in Raleigh, N.C. on November 2-5, 2015.
 - During the meeting, the group will discuss the preliminary results of this year's Rodeo, the progress of the various ongoing activities, bring up research needs, and identify priorities for the upcoming year.
 - It was voted that the expenses for all six members of the TAC will be covered by the pooled-fund, and to approve the continuation of the Consortium with a new Pooled-Fund Study.

Anticipated work next quarter:

- Organize the mid-year TAC meeting in conjunction with this year's RPUG meeting in Raleigh, N.C. on November 2-5, 2015.
 - Complete the processing of the data collected during the 10th Annual Surface Properties Rodeo and prepare a presentation for review at the TAC meeting in November.
 - The Consortium will offer to contribute to RPUG with at least two presentations dealing with:
 - Virginia Pilot Network Friction Project using CFME
 - Method for reviewing accuracy and comparisons to ground-truth of High Speed Pavement Macrotecture.
- If approved, these presentations will be prepared and presented.

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).

No problems were encountered in this quarter.

Potential Implementation: