

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: 9/30/2015	Number of Extensions: 2

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
\$1,645,605	\$1,593,407	97%

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
\$33,172 (2%)	\$33,172	97%

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 Consortium participated in the ASTM E-17 Meeting in State College, Pennsylvania and brought one of the Grip Testers to the 20th Annual Friction Workshop from May 13-17, 2013. Measurements were taken in the test track and the new airport strip.
- The 7th *Annual Surface Properties Rodeo* was held at the Smart Road in Blacksburg on May 20-24, 2013.
 - Representatives from five consortium members (Georgia, Mississippi, Pennsylvania, South Carolina, and Virginia DOT) and several invited guests (from AMES Engineering, the International Grinding and Grooving Association – IGGA, the Maryland SHA, the Texas DOT, and Rutgers University) participated in the event. The invited attendees made presentations about some of the activities in their agencies/institutions and their vision on future surface properties research needs.
 - Eight high-speed profilers participated in the rodeo, from Georgia, Mississippi, South Carolina (2), Pennsylvania, Virginia, AMES, and VTTI. Two SURPRO profilers (Mississippi and VTTI) were used to obtain reference profiles in the five tested sections.
 - Five friction devices also participated: four locked-wheel skid testers, from Georgia, Mississippi and Pennsylvania DOTs and IGGA, and one GripTester from VTTI. Two of the locked-wheels testers used both, ribbed and smooth tires for testing, and the other two only ribbed tires. Additional reference measurements were made with VA's CTMeter and DFT.
 - Three OBSI devices, from IGGA, Rutgers, and VTTI, were also compared in this equipment roundup.
 - The Final Draft Report of the 2012 Rodeo was distributed to all members.
- The Consortium Technical Advisory Committee (TAC) met in Blacksburg, VA in conjunction with the equipment comparison exercise; during the meeting, the group:
 - Discussed the progress on the various ongoing activities, brought up research needs, and identified priorities for the upcoming year.
 - Approved an extension of the project until September 30, 2015.
 - Agreed to hold a mid-year TAC meeting to discuss the results of the 2013 Rodeo in conjunction with this year's RPUG meeting in San Antonio, Texas, September 17-22.
- The GripTester Loan Program has both GripTesters operational.
 - One of the units has been used by VTTI to assist VDOT with measurements on High Friction Surfaces applications and other critical locations.
 - The second unit is on loan to the West Virginia DOT

- The consortium team has continued the support for the organization of the *Pavement Evaluation 2014 Conference*.
 - The group will sponsor an exhibit booth at the upcoming RPUG meeting to inform the participants of the PE 2014 Conference to be held September 14-18, 2014 at *The Inn at Virginia Tech* in Blacksburg, Virginia.
 - A visit to the Smart Road with a possible equipment demo/comparison is being discussed.
- The loading plates for the skid-tester calibration and certification center were calibrated in April thanks to a generous offer from John Andrews from the Maryland State Highway Agency, who collaborated in the set-up of the facility in VTTI. The equipment was provided to the Consortium by IGGA. Preparations for a locked-wheel skid trailers calibration and facility at VTTI for the use of the consortiums members continues, with all member states showing interest in this new benefit.
- Support was provided to the Ohio Department of Transportation by assisting with reference profile measurements on five sections on May 1st.

Anticipated work next quarter:

- Organize a mid-year TAC meeting in conjunction with this year's RPUG meeting in San Antonio, Texas, September 17-22.
- Complete the processing of the data collected during the 7th *Annual Surface Properties Rodeo* and prepare a draft report to be distributed and reviewed at the TAC meeting in September.
- The Consortium has offered to contribute to the RPUG with three presentations dealing with: (1) friction equipment comparisons, (2) profile comparisons, and (3) probe vehicle technology used to make profile measurements. If approved, these presentations will be prepared and delivered.
- Complete the deployment of a locked-wheel skid trailer calibration facility, which is expected to be operational in August.
- Continue to support the organization of the PE 2014 conference.

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: