

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 checked="" 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: 6/30/2013	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
\$1,525,614	\$1,518,920	99%

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date

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 continued this quarter with the loan of Grip Tester #2 to the Georgia DOT from the beginning of August. At the same time, the Georgia DOT requested VTTI to help them establish several Profiler Calibration Sites with their recently acquired ICC SURPRO unit.
 - This work was initially performed in Tara South Regional Airport located about 20 miles south of Atlanta. Subsequently, VTTI personnel returned to establish a second and third calibration sites on I-85 near Union City and SR 16 near Griffin.
 - The initial visit to the Materials Division in July included a presentation on the use of the Grip Tester and other Continuous Friction Measurement Devices to the State Research Engineer and her staff, training on the use of GripVAL, and the data analysis for the friction data collected.
- The *7th Symposium on Pavement Surface Characteristics* (SURF 2012) was held in Norfolk with more than 175 attendees from more than 28 countries. There were a total of 16 technical sessions with over 64 presentations over the course of the two and a half days of the conference. Some of the more important highlights of the conference include:
 - Simultaneous English-French translations were available during all of the sessions of the conference and the committee meetings that PIARC held prior to the conference.
 - The presentations included new ways in which the technology is being used to evaluate pavement surface characteristics. Changes in smoothness methods, friction devices, noise, rolling resistance, three-dimensional mapping technology, and others were discussed and what will be their impact in this area.
 - Recommendations were made to encourage the collaboration and coordination with the tire and vehicle industry to understand the interaction of the pavement-surface-tire challenge and how to better deal with the optimization of pavement surfaces in its role as key inputs to support pavement, safety, performance and asset management decisions.
- The results from the *6th Annual Surface Properties Rodeo* held in Blacksburg on May 21-25 at the Smart Road were presented to the technical advisory committee during the SURF conference. The results included:
 - Comparison of the seven profilers (Georgia, Mississippi, South Carolina, Virginia (3), and from the National Road Laboratory of Costa Rica [LANAMME]), and a SURPRO reference profiler (MS).
 - Comparison of seven friction devices (Locked-wheel skid testers from Georgia, Mississippi, South Carolina, Virginia and one from the International Grinding and Grooving Association (IGGA), and two Grip Testers, one from VTTI operated by the West Virginia DOT personnel and one from LANAMME).
 - The Revised Report of the 2012 Rodeo will be distributed to all members in the near future.

- Dr. Edgar de León Izeppi participated the 24th Annual RPUG meeting in Minneapolis, MN on September 24-27, 2012.
 - He made a presentation about the *Pavement Surface Properties Consortium* and *The Little Book of Friction*.
 - Attendees were presented with the link from the CSTI Surface Properties current projects website to download it and encouraged to provide comments and reviews that might help improve it at:

Anticipated work next quarter:

- Grip Tester #1 is scheduled to be returned from TRANSTEC on the first week of October, 2012.
- All of the presentations of the SURF 2012 conference will be placed in the VTTI Conferences website.
- The Technical Advisory Committee (TAC) will receive the Rodeo Report as soon as all of the computations are completed.
- Researchers will participate in the ASTM E-17 Committee meeting in Atlanta December 3-4, 2012.
- Work will continue on the *Little Book of Friction* as proposed changes become available from the users reviews.

Significant Results:

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).

- Grip Tester #2 taken to Atlanta (GDOT) has been reported to have some operational issues by the local GDOT operators. It will be replaced by Grip Tester #1 as soon as it is available for shipping from Blacksburg.
- The seasonal monitoring that was being carried out once a month with VDOT skid tester will be suspended until further notice since the equipment is not operational.

Potential Implementation: