

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 checked="" 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 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
\$1,505,268.00	\$1,456,836.93	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

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.):

- Regarding the Grip Tester Loan Program:
 - Grip Tester #2 that had been in the Transportation Laboratory of CALTRANS in Sacramento, California on loan since April was received in January after FHWA authorized it to stay in California to do several pre-treatment measurements in HFS sites.
 - Grip Tester #1, requested by the Puerto Rico DOT, will be instead sent to Texas for a demonstration with the Dynatest HFT. Afterwards, this unit will be sent to MNRoad for another demonstration.
- Continued support for the organization of the *7th Symposium on Pavement Surface Characteristics (SURF 2012)* included:
 - Papers have been received and are being reviewed by the technical committee. Full papers were due by January 21st and presentations by April 30th 2012. Author notifications were originally scheduled for March 16 but have been delayed to include more papers.
 - Monthly meetings have continued to be held to define speakers, translations, marketing, etc. A full committee monthly meeting was held during TRB in Washington DC on January 22, 2012. The hotel has not been evaluated by the organizing committee due to conflicts in scheduling. It is expected to be done in the next quarter.
- Data collection for a new temperature-based model for friction measurements that can be more universally applicable has started and is expected to be continued once a month during in 2012.
- Four papers that used data collected as part of the consortium activities were presented at the *91st Annual Meeting of the Transportation Research Board* in January, 3 in podium presentation and 1 in a poster. Three of these papers have been accepted for publication in the TRR journal.
 - “Limits of Agreement Method for Comparing Pavement Friction Measurements,” paper 12-1864, and
 - “Pilot Demonstration of the Use Probe Vehicle Dynamic Signatures to Measure Road Smoothness,” paper 12-3384,
 - “Determination of Pavement Macrotecture Limit for Use in The International Friction Index (IFI) Mode,” paper 12-1408.
- The organization of the *6th Annual Surface Properties Rodeo* to be held in Blacksburg on May 21-25 at the Smart Road has been initiated and invitations have been sent to the Consortium members.
 - Preparations are under way and it is expected to have 4 profilers and 8 friction devices.
 - Two OBSI devices, from VTTI and IGGA, are also expected to be compared in this event.

Anticipated work next quarter:

- Hold the 6th Annual Surface Properties Rodeo on May 21-25 at the Smart Road in Blacksburg, VA. Preparations have begun and invitations have been sent to the partners and invited equipment.
- Complete the development of a 2-page Friction Technology Brief.
- Continue measurements for the seasonal monitoring experiment.
- Continue to support the organization of the SURF 2012 conference.
- Complete the “*Little Book of Friction*”

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).

No problems were encountered in this quarter.

Potential Implementation: