

Virginia Transportation Research Council
Contract/Grant Progress Report

Project No: <u>07-0219-07</u>	Starting Date: <u>7/1/06</u>	Target Completion Date: <u>6/30/11</u>
Project Title: <u>Consortium for Pavement Surface Properties</u>		
Performing Agency: <u>Virginia Tech</u>		
Principal Investigator(s): <u>Gerardo Flintsch</u>		
Date of This Report: <u>02/28/11</u>	Next Report Due Date: <u>05/31/11</u>	

Project Description

The main objective of the project is to establish a research program focused on enhancing the level of service provided by the roadway transportation system by optimizing pavement surface texture characteristics.

Research Activities Pursued This Period (Including Tasks):

- Initiated the arrangements for the 5th Annual Surface Properties Consortium Rodeo to be held on May 22-27, 2011 in Blacksburg, VA.
- Three presentations were made at the 2011 Annual Meeting of the Transportation Research Board in January 23-25, 2011 (sessions 309 and 531).
 - Two related with the Friction Loan Program and one with the Stereo Vision System,
 - One of the friction papers has been accepted for publication.
- Grip Tester #1 was used by the New Mexico DOT to evaluate the skid characteristics on a new pavement being constructed on route 87 between Raton and Clayton. Training was conducted on the week of February 7-11 in Clayton, New Mexico. Although the weather was below zero, the training was carried on without any difficulties and the equipment has performed well.
- A preliminary assessment of the Halliday RT3-Curve unit was made at the Smart Road on January 14, 2011. Weather conditions did not allow for a complete set of tests to be made. It is suggested that a full set of tests with this unit be made during the Annual Surface Properties Consortium Rodeo.
- The state of California has requested a loan for Grip Tester #2 unit for a period of six months. The necessary arrangements for deployment and training are being made to deliver it in March.
- A memorandum of understanding for organizing the 7th International Symposium on Surface Properties (SURF 2012) is being signed by all the participating parties.
 - Printed a call for papers handout and distributed copies during the TRB Annual Meeting in January.
 - The website is up at <http://www.surf2012.org/>.
- A presentation of a white paper about the field study made to verify the operation of the various continuous friction measurement equipment (CFME) units in the Loan Program was made to the TRB Committee AFD90.
 - This study investigated the effect of speed (25, 40, and 55 mph) and water film-thickness (0.25, 0.50, and 1.0 mm).
 - A formal paper will be prepared for the ASTM E-17 committee symposium for December 2011.
- A paper summarizing some of the results of the CFME Loan Program was submitted for the 8th International Conference on Managing Pavement Asset (ICMPA), being organized by TRB in Santiago, Chile, November 15-19, 2011.

Problems Encountered:

- None.

Activities Planned for Next Period:

- Start the development of a “Little Book of Friction.”
- Continue to support the organization of the 7th International Symposium on Pavement Surface Characteristics (SURF 2012).
- Deliver the Grip Tester #2 to California and conduct the required training; the device will stay there for six months.
- Deliver the Grip Tester #1 to Wisconsin and conduct the training, once FHWA confirm their interest and provide a contact.
- Deliver a presentation on the Stereo-Vision System at the First ASCE TD&I Congress in Chicago, IL, March 14-16, 2011.
- Organize and host the 5th Annual Surface Properties Rodeo in Blacksburg on May 22-27 at the Virginia Smart Road.
- Develop a draft one-page primer on friction and submit it to the TAC for review.

Budget Status:

Current FY Project Budget: \$ 496,337 ⁽¹⁾	Project Budget Lifetime: \$ 1,298,380 ⁽¹⁾
Current FY Expenditures: \$ 446,857 as of 2/28/11	Expenditures LTD: \$ 1,267,901
Percent Expended this FY: 90% (Date)	Percent Expended LTD: 98%

Timetable: Project is (check):

- On Schedule
- Behind Schedule * (explain above)
- Ahead of Schedule

⁽¹⁾ A contract modification to adjust these quantities to reflect commitment during FY 10-11 is currently being processed.

Preparer’s Name and Signature: Gerardo Flintsch



Date: 03/15/11

VTRC Staff Technical Monitor: _____

Date: _____

Reviewed and Approved By: _____
(VTRC Associate Director)

Date: _____

Review Comments: (To be completed by Research Director and Returned to Research Manager)