

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>11/30/10</u>	Next Report Due Date: <u>02/28/10</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):

- The Pavement Evaluation 2010 Conference (PE 2010) was held in Roanoke October 25-27, 2010.
 - The conference had over 240 attendees (21 international from 12 countries and over 80 state DOT participants), 13 exhibitors, 4 sponsors and more than 60 presentations.
 - The conference also scheduled a PROVAL workshop, a tour of the Smart Road Tour, Equipment Exhibitions and a mini-Rodeo.
 - Presentations have been posted in the conference web site.
 - The consortium supported the organization, participated with two presentations and counted with participation from the six member states.
- The annual Technical Advisory Committee (TAC) was held in Blacksburg on the last day of the conference.
- The results from the 4th Annual Equipment Rodeo held in May were presented at the TAC meeting and participants were asked to provide feedback. The final 2010 Rodeo Report will be finished after getting the members feedback.
- Both DYNATEST HFT system and GripTester #2 participated at the Annual Friction Workshop held at Penn State this year on September 7-10, 2010. TRANSTEC participated with GripTester #1 and Virginia DOT also participated with a locked wheel skid tester with the support of the Consortium.
- The Friction Loan Program Dynatest HFT was taken to Connecticut and training was done from September 27-30, 2010. Unfortunately, on October 5 FHWA gave directions that this unit was not to be used by anybody that was not a federal employee. The unit was brought to Blacksburg by a FHWA employee on October 22-24, 2010, where it has been stored in an equipment parking bay.
- GripTester #1 is in VTTI for overhaul and repairs. GripTester #2 was shipped on October 6th as a repeat loan to MNRoad in Minnesota for the continuation of their measurements where it has stayed until today.
- The Final Beta version of the GripVal software was presented in the Pavement Evaluation 2010 Conference (PE 2010) in Roanoke. A paper about it has also been accepted for publication and presentation in the annual TRB conference in January 2011 where it will be made available to the interested public.
- A small field study was conducted to verify the correct functioning of the continuous friction measurement equipment (CFME) as a result of equipment problems encountered in the previous quarter.
 - Tests were made at 25, 40, and 55 mph with a 0.5 mm water film thickness flow rate and a second set of tests using a 0.25, 0.50, and 1.0 mm water film thickness at 40 mph.
 - A report in the form of a white paper for both of the GripTester units and the HFT will be presented at the TRB Surface Properties committee explaining the results of the validation experiments and repeatability and sensitivity study made at the Smart Road
- An abstract for a paper to the ICMPA conference in Chile being organized by TRB in November 2011 has been accepted. A paper will be submitted on January 14, 2011. Unfortunately, the abstract submitted to the 2011 PIARC 24th World Road Congress in Mexico was not accepted.

Problems Encountered:

- No additional new problems have been encountered.

Activities Planned for Next Period:

- New Mexico has expressed interest in borrowing the GripTester unit in January. Contact has been established and a January delivery is scheduled. Authorization to reestablish the use of the Dynatest HFT unit is expected to allow other interested states to be able to request it.
- Continue to support the organization of the 7th International Symposium on Pavement Surface Characteristics (SURF 2012).
- Both of the papers submitted for the 2011 Annual Meeting of the Transportation Research Board were accepted for presentation (only one for publication) on January 24th 2011 in session 309, Shoreham. Work has been started on the corresponding presentations.
- Develop a draft one-page primer on friction and submit it to the TAC for review.
- Start the development of a "Little Book of Friction."

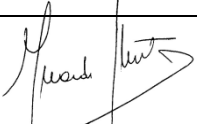
Budget Status:

Current FY Project Budget: \$ 496,337 ⁽¹⁾	Project Budget Lifetime: \$ 1,298,380 ⁽¹⁾
Current FY Expenditures: \$ 284,488 as of 11/31/10	Expenditures LTD: \$ 1,105,531
Percent Expended this FY: 57% (Date)	Percent Expended LTD: 85%

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 09-10 is currently being processed.

Preparer's Name and Signature: Gerardo Flintsch 	Date: <u>12/5/10</u>
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)