TRANSPORTATION POOLED FUND PROGRAM
QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): Virginia DOT

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.e, SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX)* TPF-5(206)	**Transportation Pooled Fund Program - Report Period:** ☑ Quarter 1 (January 1 – March 31) ☐ Quarter 2 (April 1 – June 30) ☐ Quarter 3 (July 1 – September 30) ☐ Quarter 4 (October 1 – December 31)	
Project Title: Program to Support the Development and Deployment of Connected Vehicle Applications		
Name of Project Manager(s): Michael Fontaine	**Phone Number:** 434-293-1980	**E-Mail** Michael.Fontaine@vdot.virginia.gov
Lead Agency Project ID: 97199/90712	**Other Project ID (i.e., contract #):** 133471-GS10961	**Project Start Date:** July 2009
Original Project End Date: June 2011	**Current Project End Date:** June 2020	**Number of Extensions:** 3

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
$5,882,354	$4,971,364	85%

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
N/A	$137,193	N/A

Project Description:

The pooled fund study entitled "Program to Support the Development and Deployment of Connected Vehicle Applications" was created by a group of state and local transportation agencies and FHWA in order to provide a means to conduct the work necessary for infrastructure providers to play a leading role in advancing the connected vehicle environment.

Objective:

Through a set of pooled fund studies, the Virginia Department of Transportation (VDOT) is working with federal, state and local departments of transportation, to establish a multi-phase program to facilitate the field demonstration, and deployment of connected vehicle infrastructure applications. In Phase I, the participants are focused on modeling, development, engineering and planning activities that will aid transportation agencies in justifying and promoting the large scale deployment of a connected vehicle environment. Phase 2 and 3 of the program will continue research and development to prepare agencies to deploy connected vehicle environments.

Scope of Work:

The pooled fund study will focus on the following:
• Development and evaluation of connected vehicle large-scale system level operations applications
• Independently research and address issues that will affect the deployment of connected vehicle systems by state and local transportation agencies
• Support AASHTO's Strategic and Deployment Plans
• Support USDOT's Connected Vehicles Programs and initiatives

Progress this Quarter (includes meetings, work plan status, contract status, significant progress, etc.):

1. Pooled Fund Study Overall
   a. Monthly calls were held on January 26, February 23 and March 23.
   b. A Glossary of Connected and Automated Vehicle technology terms was completed and published.
   c. For CY 2018, two topics were selected and the scope of work are being prepared.
      i. The selected topics are V2I Queue Warning and Using Third Parties to Deliver V2I.
   d. The next face-to-face meeting planning was initiated: May 22-23 in Pittsburgh, PA.

2. Phase III Projects
   a. Basic Infrastructure Message
      i. Monthly calls were held on January 18 and March 15.
      ii. Revised reports for Tasks 2-4 and two white papers are being prepared.

3. Multi-Modal Intelligent Traffic Signal System (MMITSS) Phase 3 - Deployment Readiness Enhancements
   a. A subcontract with University of Arizona was fully executed late January.
   b. A project panel was established.
   c. A monthly call was held on March 15.
   d. The MMITSS Development Group (MDG) roster and an in-person meeting is being prepared.

4. Connected Traffic Control Systems (CTCS)
   a. WSP was selected as a preferred subcontractor.
   b. PFS comments on the proposal were sent to WSP and a revised proposal was received and approved.
   c. A subcontract with WSP is being established.

Anticipated work next quarter:

1. Pooled Fund Study Overall
   a. Monthly calls will be held in each month.
   b. Scopes of work for the selected project ideas for CY2018 will be prepared.
   c. A face-to-face meeting will be held on May 22-23 in Pittsburgh, PA.
   d. PFS Phase 4 contract will be established.

2. Phase III Projects
   a. Basic Infrastructure Message
      i. Monthly project calls will be held in each month.
      ii. Most of the projects (Tasks 1 - 5) will be completed.

3. Multi-Modal Intelligent Traffic Signal System (MMITSS) Phase 3 - Deployment Readiness Enhancements
   a. Monthly project calls will be held in each month.
   b. An in-person meeting for the MMITSS Development Group (MDG) will be held in May.

4. Connected Traffic Control Systems (CTCS)
   a. A kick-off call will be held at the face-to-face meeting on May 22 in Pittsburgh, PA
   b. The work will initiate.

Significant Results:

None in this quarter.

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 have been encountered to date.

Potential Implementation:

None in this quarter.