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
$7,882,354	$5,672,742	72%

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	$182,531	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. Phases 2 through 4 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 25, March 1, and March 29.
   b. A face-to-face meeting is being planned for Ann Arbor, MI on April 30 - May 2.
   c. Commitments are being received for the current/new PFS (TPF-5(389)) for FY2019 and beyond; and the previous PFS (TPF-5(206)) up to FY2018.

2. Multi-Modal Intelligent Traffic Signal System (MMITSS) Phase 3 - Deployment Readiness Enhancements
   a. Monthly calls were held on January 24, February 21 and March 21.
   b. Task 2: MMITSS Development Plan - a revised plan has been received and in review.

3. Connected Traffic Control Systems (CTCS)
   a. Monthly calls were held on January 22, February 19 and March 19.
   b. Project Management Plan and Stakeholder Engagement Plan - completed - published on the CV PFS website
   d. Task 3: Research Review Report - a revised report is being prepared.
   e. A Stakeholder Needs Workshop is being planned for April 30 in conjunction with the PFS meeting in Michigan.

4. V2I Queue Advisory/Warning
   a. A process to establish a subcontract is being conducted.

5. Using Third Parties to Deliver I2V
   a. The project officially started on March 8.
   b. Task 1: Project Management Plan and Project Schedule - drafts were delivered and in review

Anticipated work next quarter:

1. Pooled Fund Study Overall
   a. Monthly calls will be held in each month.
   b. A face-to-face meeting will be held in Ann Arbor, MI on April 30 - May 2.

2. Multi-Modal Intelligent Traffic Signal System (MMITSS) Phase 3 - Deployment Readiness Enhancements
   a. Monthly project calls will be held in each month.
   b. A MMITSS development plan will be finalized.

3. Connected Traffic Control Systems (CTCS)
   a. Monthly project calls will be held in each month.
   b. A Research Review Report will be finalized.
   c. A Stakeholder Needs Workshop will be held in Ann Arbor, MI on April 30.

4. V2I Queue Advisory/Warning
   a. The project will be officially initiated.
   b. A kick off meeting will be held at the face-to-face meeting in Ann Arbor, MI on May 1.
   c. Work and monthly calls will start.

5. Using Third Parties to Deliver I2V
   a. A kick off call will be held.
   b. Work and monthly calls will start.

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.