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	$5,490,211	70%

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	$136,755	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. A monthly call was held on November 2.
   b. A face-to-face meeting was held in Atlanta, GA on December 4-5.
   c. Commitments are being received for the current PFS up to FY2018 and the new PFS for FY2019-2020.
2. PFS Phase 3 Projects
   a. Basic Infrastructure Message
      i. This project was completed on December 31.
      ii. All the final reports were approved and published at the CV PFS website.
3. Multi-Modal Intelligent Traffic Signal System (MMITSS) Phase 3 - Deployment Readiness Enhancements
   a. Monthly calls were held on October 18 and November 15.
   b. A MMITSS development plan is being prepared.
4. Connected Traffic Control Systems (CTCS)
   a. Monthly calls were held on October 16 and November 20.
   b. A project management plan, a stakeholder engagement plan, and a research review reports are being prepared.
5. PFS Phase 4
   a. Two projects are being pursued: V2I Queue Advisory/Warning and Using Third Parties to Deliver I2V
   b. For both projects, the following were done:
      i. A request for letter of intent were released.
      ii. Letters of intent were received and evaluated by the PFS core members.
      iii. A preferred subcontractor was selected.
      iv. PFS comments were sent back to the selected subcontractor.
      v. A final revised proposal will be received in January.

Anticipated work next quarter:

1. Pooled Fund Study Overall
   a. Monthly calls will be held in each month.

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 project management plan, a stakeholder engagement plan, and a research review reports will be finalized.

4. PFS Phase 4
   a. Two projects are being pursued: V2I Queue Advisory/Warning and Using Third Parties to Deliver I2V
   b. For both projects, the following will be done:
      i. A final revised proposal will be received in January.
      ii. A subcontract will be established.
      iii. A project panel will be assembled.
      iv. The project will kick off.

Significant Results:

1. The Basic Infrastructure Message project (as part of PFS Phase 3) was completed.
   a. All the final reports were approved and published at the CV PFS website.
   b. The final results were forwarded to the Society of Automotive Engineers (SAE) J2945 committee for consideration to be included in the next version of the standard J2945/4.

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.