Cooperative Transportation Systems (CTS) Pooled Fund Study (PFS)

August 30, 2011
Melissa Lance
ITS Communications Manager
Virginia Department of Transportation
Cooperative Transportation Systems
Pooled Fund Study

• The Pooled Fund Study (PFS) is a partnership of transportation agencies who have established a program to facilitate the development and evaluation of Connected Vehicle applications.

• The program will prepare state and local transportation agencies for the deployment of Connected Vehicle technologies.

• The program will result in the following outcomes:
  – Development and demonstration of Connected Vehicle-enabled system operations algorithms, tools and applications
  – Preparation for field demonstration tests
Current PFS Membership

Paying/Voting Members

• VDOT is lead agency with administrative support from UVA

• Ten Core Members:
  Virginia, California, Florida, Michigan, Minnesota, New York, Texas, Washington, Maricopa County and FHWA

• Wisconsin DOT is joining for Phase 2

Non-paying/Non-voting Members

• Associate Members:
  Palm Beach Co, FL; Oakland Co, MI; MTC (Bay Area), Montgomery Co, MD; Transport Canada

• Liaisons:
  NCHRP/SHRP 2; AASHTO (strategic and deployment plans)
CTS PFS Program Phases

Phase I (FFY 10-11)
- Focused on researching topics needed for transportation agencies to plan for connected vehicle deployments

Phase II (FFY 12-13)
- Focused on preparing agencies to deploy connected vehicle environments, potential tasks may include
  - Framework for state and local agencies to evaluate different approaches to Connected Vehicle infrastructure deployment
  - Follow on tasks from Year 1 projects that enable transportation agencies to deploy connected vehicle technologies
  - Deployment of DMA Signal Application
  - Phase now open for new member commitments
PFS Program Goals and Objectives

• Develop and evaluate Connected Vehicle system-level applications
  – Signal system algorithms
  – Pavement Maintenance Support Applications

• Independently research and address issues that will affect the deployment of Connected Vehicle systems by state and local transportation agencies
  – Certification of RSEs
  – Deployment of OBE/Aftermarket devices
  – Evaluation of Signal Phase and Timing data

• Support AASHTO’s Strategic and Deployment Plans

• Support USDOT’s Connected Vehicles Programs and initiatives
  – Dynamic Mobility Applications
Support and Align with Key Recommendations from AASHTO’s Deployment Analysis*

- Support applications on aftermarket & consumer devices
- Deploy RSEs for selected applications and users, based on corridor approach
  - Mobility & agency operations
  - Commercial vehicle transactions
  - Emergency Vehicle pre-emption
  - Safety applications at isolated intersections
- Support and provide input to the USDOT’s Connected Vehicle Program
- Address CV governance, liability, security and privacy issues
- Develop plan for CV education and outreach
- Develop a national footprint plan for DSRC RSE infrastructure
- Provide recommendations into the development of formal CV Infrastructure Design Guidelines
- Develop a national funding strategy, collaborating with other parties as appropriate

*AASHTO Connected Vehicle Infrastructure Deployment Analysis Final Report
PFS Phase II of Study

• Study has been extended for another two year phase that allows:
  – Additional funds and contract vehicle to continue independent Connected Vehicle research and development activities
  – PFS to develop projects that align with the DMA program timeline
  – Projects to evolve to the deployment/testing of Connected Vehicle applications and research

• Phase II Next Steps
  – PFS Website is open for Commitments
    • $50k per year per agency
    • SPR Funds can be used
    • Localities are welcome to join as a paying member, commitments can be negotiated based on agency size and research/operations budgets
    • Begin Phase II in January 2012
  – Projects still to be defined for Phase II of the Study, however, will focus on the deployment of CV technology
Additional Information

Cooperative Transportation Systems Pooled Fund Study Website

http://cts.virginia.edu/CTSPFS_1.html

Melissa Lance
Virginia Department of Transportation
ITS Communications Manager
Melissa.lance@vdot.virginia.gov