

## TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT):                     FHWA                    

**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.*

<b>Transportation Pooled Fund Program Project #</b> TPF-5(065) and TPF-5(316)		<b>Transportation Pooled Fund Program - Report Period:</b> <input type="checkbox"/> Quarter 1 (January 1 – March 31) <input checked="" type="checkbox"/> Quarter 2 (April 1 – June 30) <input type="checkbox"/> Quarter 3 (July 1 – September 30) <input type="checkbox"/> Quarter 4 (October 1 – December 31)	
<b>Project Title:</b> Traffic Control Devices Pooled Fund Study			
<b>Name of Project Manager(s):</b> Jim Shurbutt, FHWA Bryan Katz, Leidos	<b>Phone Number:</b> (202) 493-3420 (202) 493-3388	<b>E-Mail</b> <a href="mailto:Jim.shurbutt@dot.gov">Jim.shurbutt@dot.gov</a> <a href="mailto:bryan.katz@dot.gov">bryan.katz@dot.gov</a>	
<b>Lead Agency Project ID:</b> TPF-5(065) and TPF-5(316)	<b>Other Project ID (i.e., contract #):</b>	<b>Project Start Date:</b> October 1, 2002	
<b>Original Project End Date:</b> N/A Continuing Effort	<b>Current Project End Date:</b>	<b>Number of Extensions:</b>	

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
<b>\$3,220,074 (TOTAL)</b> \$1,019,602 (FHWA) \$1,241,074 (FMIS + Lockbox up to FY 2008) \$1,979,000 (Delphi)	<b>\$2,626,004.91 (TOTAL)</b> \$1,019,602 (FHWA) \$860,000 (FMIS) \$746,402.91 (Delphi)	Ongoing Project (N/A)

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
No new projects allocated		Ongoing Project (N/A)

**Project Description:**

The purpose of the TCD PFS is to assemble a consortium composed of regional, State, local entities, appropriate organizations and the FHWA to 1) establish a systematic procedure to select, test, and evaluate approaches to novel TCD concepts as well as incorporation of results into the MUTCD; 2) select novel TCD approaches to test and evaluate; 3) determine methods of evaluation for novel TCD approaches; 4) initiate and monitor projects intended to address evaluation of the novel TCDs; 5) disseminate results; and 6) assist MUTCD incorporation and implementation of results.

**Progress this Quarter (includes meetings, work plan status, contract status, significant progress, etc.):****Traffic Control Devices Pooled Fund Study Technical Support**

During the quarter, the TCD PFS held its annual meeting in Atlanta, GA. During this time, existing projects were discussed and new projects were prioritized. A new symbol sign study will be performed using available funding and then other topics will be finalized once problem statements are generated. The new potential topics include:

- Lane Reduction vs. Lane Drop signing and marking
- Guide Signing for U-Turn Intersections
- Enhancing Conspicuity for Standard Signs and Retroreflectivity Strips on Posts
- Simplification of Channelization Device Delineation Patterns
- Pedestrian information needs with regard to activated beacons

**Lane Line Markings in Advance of Lane-Reduction Transitions**

Examples of scenarios developed and software capabilities were presented at the annual TCD PFS meeting. The CADD Software Suite is continued to be used to develop scenarios for participant testing.

**Intersection Conflict Warning Systems Human Factors Research**

Intersections of all three types (2-lane by 2-lane, 2-lane by 4-lane, 2-lane by 4-lane divided) of stop controlled intersections have been modeled. All signs to be tested have been constructed. The only remaining challenge is that text signs are less legible than desired. We are working with the software vendor to address this issue.

**Countdown Pedestrian Signals Legibility and Comprehension without Flashing Hand**

Collection of follow-up data is complete. Data analysis is continuing. Work on the draft final report is continuing. The draft final report for Phase II will be completed in the next quarter and distributed to members for comment. Preliminary analysis suggests fewer people are still in the crosswalk when cross traffic is released during the countdown timer alone condition.

**Anticipated work next quarter:****Traffic Control Devices Pooled Fund Study Technical Support**

- The symbol sign study will begin and problem statements will be generated for new topics.

**Lane Line Markings in Advance of Lane-Reduction Transitions**

- Scenario development will be completed and participant data collection will begin.

**Intersection Conflict Warning Systems Human Factors Research**

- Data collections will be completed, or nearly so.

### **Countdown Pedestrian Signals Legibility and Comprehension without Flashing Hand**

- The draft final report for Phase II will be completed in the next quarter and distributed to members for comment.

#### **Significant Results:**

Past projects have led to significant results and changes that were incorporated into the 2009 MUTCD, particularly from the Symbol Sign, Arrow Per Lane Guide Signs, and Roundabout Signing studies. Recent studies are being considered by the MUTCD for incorporation into the 2016 MUTCD.

**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 challenges or problems encountered.

#### **Potential Implementation:**

All results from the Traffic Control Devices Pooled Fund Study are presented to the National Committee on Uniform Traffic Control Devices (NCUTCD) and are considered by FHWA for inclusion in subsequent MUTCD versions.