

TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): **Indiana Department of Transportation**

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 # TPF-5(258)	Transportation Pooled Fund Program - Report Period: <input type="checkbox"/> Quarter 1 (January 1 – March 31) <input type="checkbox"/> Quarter 2 (April 1 – June 30) <input type="checkbox"/> Quarter 3 (July 1 – September 30) <input checked="" type="checkbox"/> Quarter 4 (October 1 – December 31)	
Project Title: Traffic Signal Systems Operations and Management		
Name of Project Manager(s): James R. Sturdevant	Phone Number: (317) 691-9091	E-Mail jsturdevant@indot.in.gov
Lead Agency Project ID: TPF 5(258)	Other Project ID (i.e., contract #):	Project Start Date: January 1, 2012
Original Project End Date: December 31, 2014	Current Project End Date: December 31, 2014	Number of Extensions: 0

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
\$700,000	\$17,600	5%

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
2.5%	\$16,888	30%

Project Description:

Signalized arterials represent a substantial component of the highway transportation network in the United States. The National Transportation Operations Coalition (NTOC) in their 2007 Traffic Signal Report Card noted that nationally 5 to 10 percent of all traffic delay is caused by improper traffic signal timings along major roadways. In 2007, the National Report Card for overall traffic signal systems operations was a D. The situation is not expected to improve as travel demand is forecast to grow significantly faster than network capacity. The increase in national attention on sustainable and livable communities necessitate a concentrated effort be placed upon improved management and operation of our nations traffic signal system inventory.

The Transportation Management Center (TMC) Pooled fund study (SPR-2(207)) initiated in 2000, has been very successful at generating consensus on best management practices for traffic management centers oriented mainly towards freeway operations. It is desirable to develop a similar pooled fund study oriented toward traffic signal operations and management that would complement SPR-2(207) and engage a broad cross section of agencies on the leading edge of active traffic signal management.

Project Objectives

Develop a network of transportation agencies to i) develop consensus on operational standards of performance, ii) define a central management model that can leverage commercial wireless IP offerings that can be competitively outsourced, and iii) asset management principles for using a central system to identify when and where resources are most needed to maximize return on investment.

The level of participation and associated funding commitments will allow for additional opportunities over time or in parallel to explore additional traffic signal initiatives beyond those described herein. For example, the evaluation of adaptive control field deployments and associated systems engineering guidance documents under development by FHWA.

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

Panel meeting was organized and held on June 14th, 2012 in Indianapolis.

Subsequent to the panel meeting a draft scope was distributed to the panel on July 12, 2012.

According to the scope, telephone interviews with the following panel members were conducted:

- October 2
 - Minnesota (Steve Misgen)
 - Mississippi (Amrik Singh)
 - Utah (Mark Taylor/Shane Johnson)
 - Wisconsin (David Karnes/Joanna Bush/Don Schell)
 - Texas (Henry Wickes)
- October 3
 - Chicago (Dave Zavatiero)
- October 4
 - New Hampshire (Peter Crouch/Toby Reynolds/Joseph Juianda)
- October 8
 - Follow up telecon with Minnesota (Steve Misgen and Henry Liu)

There was broad consensus that states would be interested in participating in a pilot deployment in their state. Indiana agreed to begin developing plans to facilitate that hands-on participation. That document was drafted during November and December and vetted with FHWA Representative at annual Transportation Research Board in January. That document will be distributed on February 1, 2012 and a webinar scheduled later that month to solicit participant input and finalize.

Anticipated work next quarter:

Complete minutes, draft white paper and vet with panel.

Significant Results:

- **Both Minnesota and Utah have begun piloting data collection procedures that we will use to provide hands on participation of performance measures.**

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).

Potential Implementation:

There continues to be strong concurrent and coordinated efforts with both Utah and Minnesota DOT.