

TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): IOWA 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 # TPF-5(081)	Transportation Pooled Fund Program - Report Period: Quarter 1 (January 1 – March 31, 2013) Quarter 2 (April 1 – June 30, 2013) <input checked="" type="checkbox"/> Quarter 3 (July 1 – September 30, 2013) Quarter 4 (October 4 – December 31, 2013)	
Project Title: Midwest Smart Work Zone Deployment Initiative		
Project Manager: Dan Sprengeler	Phone: 515-239-1823	E-mail: dan.sprengeler@dot.iowa.gov
Project Investigator: Tom McDonald	Phone: 515-294-6384	E-mail: tmcdonal@iastate.edu
Lead Agency Project ID: RT 63	Other Project ID (i.e., contract #): Addendum 189	Project Start Date: 2001-On-going Pooled Fund
Original Project End Date: On-going	Current Project End Date: June 30, 2015	Number of Extensions: None

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	Total Percentage of Work Completed
\$1,917,500	\$1,853,499.02	On-going

Quarterly Project Statistics:

Total Project Expenses This Quarter	Total Amount of Funds Expended This Quarter	Percentage of Work Completed This Quarter
N/A	N/A	On-going

Project Description:

- Vendor Solicitation
- Distribute Group Reports
- Maintain website
- TAC meetings
- Maintain research report
- Recommend research reimbursement
- Solicit state participation
- Inquiry contact
- (On-going project)

Progress this Quarter (includes meetings, work plan status, contract status, significant progress, etc.):Quarter Ending June 30, 2013:

Received and recorded quarterly report data from Principal Investigators for contracted projects. Communicated with BOD and stakeholders on problem statements for CY2014 project solicitation. Website maintained and new reports posted. Following is a summary of accomplishment for individual projects under contract.

2008 Program

-Evaluation of Variable Advisory Speed Limit Systems for Work Zones, University of Missouri, Praveen Edara, PI

The final report has been reviewed and accepted by the Board of Directors, project is complete.

2011 Program

-Influencing Work Zone Traffic Flow Through Variable Messaging Technologies, Missouri University of Science and Technology with Ming Leu as PI.

We have not received, as of quarterly report deadline, the current quarter report for this project. We have followed up with the project investigator requesting this information. The previous quarterly report ending 6/30/2013 stated the project was 89% complete.

2012 Program

-Development of a TL-3 Transition between Temporary Concrete Barrier and Guardrail, University of Nebraska with Ron Faller as PI.

MwRSF continued simulation work on the development of a TL-3 transition between portable concrete barriers and W-beam guardrail. Several design concepts were previously developed and ranked by the TAC. The most basic design concept was an end shoe connection between the W-beam guardrail and the PCBs. In this design concept, two guardrail posts remained in front of the PCB system with the intention of post rotation initiating PCB displacement. It was discovered that the posts in front of the PCB system showed a tendency to wedge against the face of the PCBs. The vehicle interaction with these wedged posts led to undesirable vehicle performance. A TAC meeting was held with NDOR representatives on 9/11/2013. In this meeting the results of the simulation analysis from the 3rd Quarter of 2013 were shown to the committee and input on further development of the system was given by the TAC. This project is approximately 75% complete.

-Work Zone Performance Measures, Iowa State University with Shauna Hallmark as PI.

The final report has been reviewed and accepted by the Board of Directors, project is complete.

-Effectiveness of Work Zone Intelligent Transportation Systems, University of Missouri with Praveen Edara as PI.

The ITS benefit-cost analysis was conducted for the I-44 and I-70 work zone case studies. A TRB paper discussing the preliminary findings of the study was submitted. Feedback was received from Tracy Scriba and the revisions are currently being made. The crash analysis is being updated using archived crash data instead of incident data during the duration of work zone. The study findings will be finalized and the draft final report will be submitted within the next two months. The project is approximately 85% complete.

-Effects of Road Construction Intensity and Operations on Rural Freeway Work Zone Capacity, Missouri University of Science and Technology with Ronaldo Luna as PI.

We have not received, as of quarterly report deadline, the current quarter report for this project. We have followed up with the project investigator requesting this information. The previous quarterly report ending 6/30/2013 stated 35% complete.

2013 Program

-Highway Work Zone Capacity Estimation using Field Data from Kansas State University, Kansas State University with Sunanda Dissanayake as PI.

Project is progressing well and the project team is working with KDOT to identify suitable locations for field data collection. The project is approximately 15% complete.

-Modeling Merging Behavior at Lane Drops, Iowa State University with Shauna Hallmark as PI.

The project team could not find feasible sites with cameras, but have these issues resolved, and will have suitable sites for this project. The project is approximately 7% complete.

-Intelliroute: A Smart Phone – Base Real Time Work Zone Detour Information System Driven by Crowd Source Data, University of Wisconsin-Milwaukee with Yue Liu as PI.

Data feeds have been properly identified and 511 XML files parsed. The database server side programming is finished. The system design is partially done. The application development has started. The project is approximately 40% complete.

-Calibration of Highway Safety Manual Work Zone Crash Modification Factors, University of Missouri-Columbia with Carlos Sun as PI.

The identification of sites and crash data types is continuing on Task 1. The methodology for modeling and calibrating work zone HSM models is being developed for Task 2. The possibility of using the FHWA HSM workshop material is being explored. The HSM workshop was conducted by Ezra Hauer at the TRB Annual Meeting. This project is approximately 15% complete.

Anticipated work next quarter:

Work will continue on contracted projects. The last of the current contracted projects expires in early 2015. We will be working on closing out the current TPF number in the spring of 2015 per the guidelines of the FHWA. A new solicitation number has been requested and set up for the new TPF number and program. 2014 projects will be facilitated under the new TPF number.

Circumstance affecting project or budget (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 to report.