**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.*

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| **Transportation Pooled Fund Program Project #**  *TPF-5(081)* | | **Transportation Pooled Fund Program - Report Period:**  Quarter 1 (January 1 – March 31, 2014)  X Quarter 2 (April 1 – June 30)  □Quarter 3 (July 1 – September 30)  □Quarter 4 (October 1 – December 31) | |
| **Project Title:** Midwest Smart Work Zone Deployment Initiative | | | |
| **Name of Project Manager(s):**  Dan Sprengeler | **Phone Number:**  515-239-1823 | | **E-Mail**  Dan.sprendeler@dot.iowa.gov |
| **Lead Agency Project ID:**  Keith Knapp | **Other Project ID (i.e., contract #):**  Addendum 189 | | **Project Start Date:**  2001 to Present |
| **Original Project End Date:**  Ongoing | **Current Project End Date:**  June 30, 2015 | | **Number of Extensions:**  None |

Project schedule status:

X On schedule □ On revised schedule □ Ahead of schedule □ Behind schedule

Overall Project Statistics:

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| **Total Project Budget** | **Total Cost to Date for Project** | **Percentage of Work**  **Completed to Date** |
| $1,917,500 | $1,879,189.58 | Ongoing\* |

***Quarterly*** Project Statistics:

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| **Total Project Expenses**  **and Percentage This Quarter** | **Total Amount of Funds**  **Expended This Quarter** | **Total Percentage of**  **Time Used to Date** |
| N/A. | N/A. | Ongoing\* |

\*TPF-5(081) contracts expire in the winter of 2014/2015 and this pooled fund number is proposed to be closed-out in the late spring of 2015. TPF-5(295) has begun and is funding the new 2014 projects.

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| **Project Description**:  The Midwest Smart Work Zone Deployment Initiative (MwSWZDI) was initiated in 1999 as a Federal Highway Administration (FHWA) Pooled Fund Study intended to coordinate and promote research among the participating states related to safety and mobility in highway work zones.  The program is an ongoing cooperative effort between State Departments of Transportation, universities, and industry. The studies completed have consisted of evaluations of various work zone related products, various innovative topics, and several synthesis studies. Completed reports and descriptions of ongoing projects can be obtained at the Iowa State University’s Institute for Transportation (InTrans) website ([www.intrans.iastate.edu/smartwz/](http://www.intrans.iastate.edu/smartwz/)) link to the Smart Work Zone Deployment Initiative. InTrans currently operates as the program manager of the pooled fund efforts and completes administrative tasks related to request for ideas and proposals, meetings, project files, quarterly reports, and recommending reimbursement. |

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| **Progress this Quarter (includes meetings, work plan status, contract status, significant progress, etc.):**  **Quarter Ending June 30, 2014 (Overall)**  During this quarter we communicated with various principal investigators. Resolved some progress issues with one project. Posted one final report and finalized all four program year 2014 project contracts. Communicated with Board about review of two additional final reports. Received comments and shared them with principal investigators. Currently preparing them for posting. Requested 2015 problem statement ideas from Board, potential university principal investigators, and vendors. Worked on the extension of contracts for two projects. Posted program work plan for pooled fund. The following is a summary of accomplishments during the quarter for individual projects under contract.  **2011 Program Projects**   * Influencing Work Zone Traffic Flow Through Variable Messaging Technologies, Missouri University of Science and Technology with Ming Leu as PI.   This project is complete and the final report is posted on the SWZDI website. The title of the report is “A Driving Simulator Study to Evaluate the Impact of Portable Changeable Message Signs on Drivers’ Speed Characteristics”.  **2012 Program Projects**   * Development of a TL-3 Transition between Temporary Concrete Barrier and Guardrail, University of Nebraska with Ron Faller as PI.   This project was completed during this quarter and the final report is being finalized for posting on the SWZDI website.     * Effects of Road Construction Intensity and Operations on Rural Freeway Work Zone Capacity, Missouri University of Science and Technology with Ronaldo Luna as PI.   Dr. Luna is working to complete the project. In the first quarter of 2014 the project was approximately 85% complete. A quarterly report has not yet been submitted for the second quarter of 2014. The end date for this project is December 30, 2014, but Dr. Luna has indicated it may be finished sooner.  **2012 Program Projects**   * Highway Work Zone Capacity Estimation using Field Data from Kansas State University, Kansas State University with Sunanda Dissanayake as PI.   This project is 70% complete. The project is progressing well and the project team has been keeping busy with analyzing the collected data. This task has now been completed. The project end date was extended to December 31, 2014 during this quarter.   * Modeling Merging Behavior at Lane Drops, Iowa State University with Shauna Hallmark as PI.   This project is 17% complete. The literature review is primarily complete and the TAC is set (and has also met twice). Site visits have been made, data collection trailers have been rented and a test run for data collection completed. Final sites will soon be selected. The strategies for consideration have been identified, and the modeling simulation scenarios started. The end date for this project is currently 11/30/2014.   * Intelliroute: A Smart Phone – Based Real Time Work Zone Detour Information System Driven by Crowd-Sourced Data; Yue Liu as PI.   This project is 75% percent. The data compatibility issues that had occurred have been fixed and the team is working on a system test. The project was extended to December 31, 2014 during this quarter.   * Calibration of Highway Safety Manual Work Zone Crash Modification Factors, University of Missouri-Columbia with Carlos Sun as PI.   This project was completed during the second quarter of 2014. The report being finalized for posting on the SWZDI website. |
| **Anticipated work next quarter**:  Work will continue on contracted projects. Several contracted projects will expire in 2014. We will continue to work with the new investigators to start Program Year 2014 projects. This quarter the problem statement for Program Year 2015 will be reviewed and an RFP will be released. |

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| **Significant Results:**  Three project reports were completed and one posted. Program Year 2015 problem statements were requested. Additional detail is provided above in the summary for the overall pooled fund program for the quarter. |
| **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).**  Currently there are no problems to report with the administrative contract. Any issues that have come up with the individual projects that may impact schedule or budget are resolved on a case by case basis. |

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| **Potential Implementation:**  Three project reports were completed this quarter. One has been posted and two are being finalized. Those that download the report and/or hear the PI present the material may potentially use the information to change their decision-making. |