# TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): <u>lowa Department of Transportation</u>

## **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 # SPR-3(042)		Transportation Pooled Fund Program - Report Period:  X Quarter 1 (January 1 - March 31)  Quarter 2 (April 1 - June 30)  Quarter 3 (July 1 - September 30)  Quarter 4 (October 4 - December 31)	
Project Title: Aurora Program			
Project Manager: Chris Albrecht	Phone: 515-294-7684 E-mail: calbrecht@iastate.edu		
Project Investigator: Neal Hawkins	<b>Phone:</b> 515	5-294-7733	E-mail: hawkins@iastaste.edu
Lead Agency Project ID:	Other Projec	t ID (i.e., contract #):	Project Start Date: 1996 - Ongoing Pooled Fund
Original Project End Date: Ongoing Pooled Fund	Current Proj 12/31/2012	ect End Date:	Number of Extensions:
Project schedule status:	1		•

X On schedule  $\ \square$  On revised schedule  $\ \square$  Ahead of schedule  $\ \square$  Behind schedule

#### **Overall Project Statistics:**

Total Project Budget	Total Cost to Date for Project	Total Percentage of Work Completed
\$3,737,500.00	\$3,726,994.00	Ongoing Pooled Fund

# **Quarterly** Project Statistics:

Total Project Expenses This Quarter	Total Amount of Funds Expended This Quarter	Percentage of Work Completed This Quarter
\$21,722.63	N/A	Ongoing Pooled Fund

## **Project Description:**

The Aurora Program is a successful consortium of public agencies focused on collaborative research, evaluation, and deployment of advanced technologies for detailed road weather monitoring and forecasting. Members seek to implement advanced road weather information systems (RWIS) that fully integrate state-of-the-art roadway and weather forecasting technologies with coordinated, multi-agency weather monitoring infrastructures. Aurora's projects are designed to improve the efficiency of highway maintenance and distribute effective information to travelers. These initiatives are expected to result in advancement and improvement of existing RWIS, significantly reducing the adverse impacts of inclement weather on mobility.

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

#### Program Administrative Activities:

- Finalized multi-day meeting agenda for the March 2012 on-site board meeting held jointly with Clear Roads.
- Forwarded and responded to various emails and miscellaneous requests to board members.
- Maintained and updated a large portion of the RWIS Knowledge Base website.
- Coordinated final approval of the five FY2012 projects evaluated by the executive board. Several of the twelve proposals were developed from 2011 peer exchange research needs statements assigned to the Aurora pooled fund.
- Coordinated a board web meeting and one administrative call.

## Facilitate Meetings and Conference Calls:

- Facilitated several ongoing project and FY2012 research proposal correspondences and conference calls.
- Coordinated planning of March 2012 on-site board meeting with Clear Roads support staff and board members.
- Coordinated March 2012 on-site board meeting with Clear Roads.
- Produced numerous materials and presentations for the meetings and calls.
- Made presentations for both the TRB Committee on Winter Maintenance (AHD65) and Committee on Surface Transportation Weather (AH010) in January 2012.
- Drafted minutes for web meetings and administrative calls.

## Processing Travel Requests, Travel Reimbursements, and Meeting Expenses:

- Coordinated travel to and from the March 2012 on-site board meeting.
- Coordinated early reimbursements for the March 2012 on-site board meeting.

#### **Project-Specific Activities:**

- Updated several project status reports and summarized them for the board meetings and pooled fund website quarterly report.
- Participated in project calls and communicated often with project teams.
- Coordinated editorial reviews of project documents.
- Tracked project status with champions and teams through email updates and coordinated discussions.
- Distributed project materials for various projects.

## Outreach and Membership:

- Coordinated the January e-news.
- Followed up with several agencies concerning membership issues.

## Anticipated work next quarter:

## **Program Administrative Activities:**

- Develop additional meeting and call agendas.
- Updated the main program website and maintained the RWIS Knowledge Base website.
- Distribute specific Aurora project documents to board and individual project team members.

#### Facilitate Meetings and Conference Calls:

- Plan and facilitate the September on-site meeting in Toronto.
- Facilitate and document web meetings and project correspondence.
- Produce numerous materials and presentations for the on-site meeting and calls.
- Participate in the TRB spring meeting.

## Processing Travel Requests, Travel Reimbursements, and Meeting Expenses:

- Coordination of travel reimbursements for March 2012 meeting in Utah.
- Coordinate early travel for Toronto meeting.

## Project-Specific Activities:

- Updated project status reports.
- Track project status with champions and team members.
- Facilitate discussions with each research project team.
- Track project timelines and distribute project materials.

# Outreach and Membership:

- Review membership status and contact SP&R representatives from member agencies.
- Draft June e-news articles.

## Significant Results:

To date, 43 research projects have been completed by the program. Very good progress has been made on several ongoing research efforts in the past quarter; including Project 2010-01: Enhancements of the Al/RWIS CBT and Project 2010-03: Results Based Winter Road Maintenance Standards.

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).

A project status report detailing individual Aurora research efforts is available. These ongoing research projects are:

- 2007-01: RWIS Equipment Monitoring System, Phase 2 (\$135,000) = 5% complete
- 2007-04: Development of a Freezing Drizzle Algorithm (\$85,000) = 90% complete
- 2007-05: Multiple-Use ITS Data Collection Sites (\$15,000) = 15% complete
- 2008-01: National Road Weather Testing Program (\$11,000) = 20% complete
- 2008-03: MDSS Demonstration in Canada (\$75,000 in-kind)= 75% complete
- 2009-01: Evaluation and Inter-comparison of the Lufft R2S (\$55,000) = 50% complete
- 2009-04: Road Weather Education Enhancements (\$20,000) = 35% complete
- 2009-05: Further Development of PPAES (\$83,000) = 50% complete
- 2010-01: Enhancements of Al/RWIS CBT (\$50,000) = 65% complete
- 2010-02: Mobile-Weather Data Collection Guidelines (\$25,000) = 10% complete
- 2010-03: Development of Models for Standards (\$120,000) = 75% complete
- 2010-04: RWIS Sensor Density Grid (\$100,000) = 5% complete
- 2010-05: Determining RPU and Sensor Failure (\$5,000) = 10% complete
- 2011-02: RWIS Training Tool (200,000) = 10% complete
- 2011-03: Benefit/Costs and Instruction for Migrating to Open RWIS (\$75,000) = 5% complete
- 2011-04: Study of MDSS Costs (\$20,000) = 5% complete
- 2011-05: Funding Sources Identification (\$5,000) = 5% complete