

## TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): Iowa 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.*

<b>Transportation Pooled Fund Program Project #</b> SPR-3(042)	<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 4 – December 31)	
<b>Project Title:</b> Aurora Program		
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<b>Lead Agency Project ID:</b>	<b>Other Project ID (i.e., contract #):</b>	<b>Project Start Date:</b> 1996 - Ongoing Pooled Fund
<b>Original Project End Date:</b> Ongoing Pooled Fund	<b>Current Project End Date:</b> Ongoing Pooled Fund	<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	Total Percentage of Work Completed
Ongoing Pooled Fund with Approximately \$300,000 per year budget	Ongoing Pooled Fund	Ongoing Pooled Fund

Quarterly Project Statistics:

Total Project Expenses This Quarter	Total Amount of Funds Expended This Quarter	Percentage of Work Completed This Quarter
Ongoing Pooled Fund	Ongoing Pooled Fund	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 of Aurora 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 operations and distribute effective real-time information to travelers. These initiatives are expected to result in technological 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 (management):

- Developed meeting agendas for September 2011 on-site board meeting, two web meetings, and two administrative calls.
- Coordinated development of FY2012 project ideas.
- Archived numerous files and emails.
- Maintained the RWIS Knowledge Base website with input from Aurora and Clear Roads members and hosted RWIS Knowledge Base project call on June 22.
- Reviewed and approved invoices for various project charges.
- Distributed numerous documents to board and individual project team members relating to specific Aurora projects.
- Forwarded various emails and miscellaneous requests to board members.
- Updated the main program website with updated materials and coordinated site re-design.

### Facilitate Meetings and Conference Calls (management):

- Facilitated May and July 2011 board web meetings.
- Facilitated several project correspondences.
- Produced materials and presentations for the various meetings and calls.
- Corresponded with other members of the TRB winter maintenance committee.
- Drafted minutes for web meetings.

### Processing Travel Requests, Travel Reimbursements, and Meeting Expenses (management):

- Coordinated payment of expenses for Boulder meeting.
- Continued coordination of travel and arrangements for the peer exchange in Montana with Lee Smithson, as well as for Aurora board member travel.

### Project-Specific Activities (management):

- Updated project status reports and summarized them for the pooled fund website quarterly report.
- Tracked project status with champions and team members through email updates and coordinated discussions with each research project team.
- Tracked and notified project teams of project timelines for research efforts.
- Distributed project materials for various projects.
- Participated in several project and peer exchange calls.

### Outreach and Membership (management):

- Continued coordination of arrangements with WTI for the upcoming peer exchange in Montana.
- Followed up with agencies concerning membership issues.
- Coordinated production of revised program brochures.
- Worked on July 2011 E-News.
- Corresponded with vendors concerning next Friends of Aurora event.
- Updated the FOA mailing list with new members.

## **Anticipated work next quarter:**

### Program Administrative Activities:

- Developed meeting agendas.
- Develop FY2012 project ideas.
- Maintained the RWIS Knowledge Base website.
- Distribute documents to board and individual project team members relating to specific Aurora projects.
- Updated the main program website with updated materials.
- Redesign and launch main program website.

### Facilitate Meetings and Conference Calls:

- Facilitate and document web meetings and project correspondence.
- Produced materials and presentations for the meetings and calls.

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

- Continued coordination of travel and arrangements for the peer exchange.

### Project-Specific Activities:

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

### Outreach and Membership:

- Coordinate upcoming peer exchange in Montana.

## **Significant Results:**

To date, 38 research projects have been completed by the Aurora Program. Progress has been made on several ongoing research efforts in the past quarter; including Project 2010-03: Development of Models for Standards, which is being done through a partnership with the University of Waterloo, 2006-01: Support of the Clarus Initiative, and Project 2009-03: Knowledge Base for RWIS, which has established a knowledge network for road weather and winter maintenance information.

**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:

- 2000-01: Benchmarking of RWIS Forecasts (\$50,000 in-kind) = 75% complete
- 2006-01: Support of the Clarus Initiative (\$25,000) = 80% complete
- 2007-01: RWIS Equipment Monitoring System, Phase 2 (\$135,000) = 5% complete
- 2007-02: Cold Weather Testing of the Halliday Road Grip Unit (\$40,000) = 90% complete
- 2007-04: Development of a Freezing Drizzle Algorithm (\$85,000) = 70% 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: Next Generation RWIS for Canada (\$75,000 in-kind)= 75% complete
- 2009-01: Evaluation and Inter-comparison of the Lufft R2S (\$55,000) = 5% complete
- 2009-03: Knowledge Base for RWIS (\$20,000) = 95% complete
- 2009-04: Road Weather Education Enhancements (\$20,000) = 30% complete
- 2009-05: Further Development of PPAES (\$83,000) = 30% complete
- 2010-01: Enhancements of AI/RWIS CBT (\$50,000) = 25% complete
- 2010-02: Mobile-Weather Data Collection Guidelines (\$25,000) = 10% complete
- 2010-03: Development of Models for Standards (\$120,000) = 55% complete

- 2010-04: RWIS Sensor Density Grid (\$100,000) = 5% complete
- 2010-05: Determining RPU and Sensor Failure (\$5,000) = 5% complete
- 2011-01: Third Peer Exchange (\$30,000) = 60% complete
- 2011-02: RWIS Training Tool (200,000) = 5% 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